HayGroup®

Waterloo Hospitals Emergency Services

Investigator's Report

January, 2007

March 5, 2007

Honourable George Smitherman
Minister of Health and Long Term Care
80 Grosvenor Street
10th floor
Toronto, Ontario
M7A 1R3

Dear Minister Smitherman:

I am submitting this report to you in my capacity as Investigator of Emergency Services in the Region of Waterloo.

My terms of reference as Investigator included:

- Investigate and report on the emergency service system including medical coverage in Cambridge Memorial Hospital, Grand River Hospital and St. Mary's General Hospital
- Develop, in collaboration with the hospitals, a plan for a comprehensive emergency service system including medical coverage across the region
- Consider the needs of the community and other key stakeholders, the responsibility of support for regional programs among the hospitals, and the need for innovative structures and processes for the delivery of services that maximize opportunities for clinical efficiency and quality

I have carried out this assignment with the assistance of Hay Group Health Care Consulting. Based on the findings of my investigation I believe that the issues faced by the three hospitals are resolvable. The Investigator's Report offers 61 recommendations to improve the emergency services system in Waterloo Region. The five top priorities for addressing the current situation are:

1. New compensation arrangements from the Ministry of Health and Long Term and enforcement of a no top up policy by the Ministry to assist in achieving a full complement of Emergency physicians
2. Timely and appropriate response by specialist and sub-specialist consultants to support the Emergency Department physicians
3. Rapid follow-up clinics for Emergency Department cases
4. Greater clinical integration between Grand River Hospital and St Mary's General Hospital
5. Redesign of fast track processes and facilities and the creation of Clinical Decision Units.

I would like to thank the Boards and senior staff of the hospitals and the Waterloo Wellington LHIN as well as staff from the Ministry of Health and Long Term Care for assisting me and the Hay Group in carrying out this Investigation.

Sincerely,

Tom Closson

Waterloo Hospitals Emergency Services

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Final Report

January, 2007

HayGroup

Table of Contents

Summary

An Investigator to review the delivery of emergency services at the major hospitals in Waterloo Region

The Minister of Health and Long Term Care appointed Mr. Tom Closson as an Investigator to review the delivery of emergency services at the major hospitals in Waterloo Region.

The terms of reference for the Investigator included:

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Hay Group Health Care Consulting has provided consulting and analytic support to this undertaking

The Investigator engaged Hay Group Health Care Consulting to provide consulting and analytic support to this undertaking. This report presents the findings of the investigation.

Based on the findings of our review, we feel strongly that the issues faced by all 3 hospitals are resolvable. In contrast with many other regions in the province, access to inpatient beds is not the major impediment to efficient, effective and quality care in the Waterloo Region. Rather, the current problems of the Emergency Departments in the Waterloo Region hospitals are primarily the result of issues related to:

- Unstable compensation arrangements for Emergency physicians
- The organization and management of services within the EDs and the hospitals, and
- The responsiveness of on-call consulting services to the needs of patients in the EDs

Attention to the issues identified in this report and action on the related recommendations will significantly improve the accessibility, timeliness and quality of Emergency Department Care for residents of the Waterloo Region.

In our opinion the top five priorities for addressing the ED situation in Waterloo Region are:

1. New compensation arrangements from the Ministry of Health and Long Term and enforcement of a no top up policy by the Ministry to assist in achieving a full complement of Emergency physicians

2. Timely and appropriate response by specialist and sub-specialist consultants to support the Emergency Department physicians

3. Rapid follow-up clinics for Emergency Department cases

4. Greater clinical integration between Grand River Hospital and St Mary's General Hospital

5. Redesign of fast track processes and facilities and the creation of Clinical Decision Units.

Recommendations address and support resolution of the major issues facing the delivery of Emergency Department services in Waterloo Region

The following is a listing of the recommendations contained in this report. They have been developed to address and support resolution of the major issues facing the delivery of Emergency Department services in Waterloo Region. In reviewing the recommendations it is important to note that the body of the report provides the context for each recommendation and explanation of potential issues and approaches for implementation. Also the report provides additional suggestions for improvements in the organization and delivery of Emergency Department services and supporting health services that may not be fully reflected in these recommendations.

It is recommended that:

(1) The Emergency Departments of Cambridge Memorial Hospital, Grand River Hospital and St. Mary's General Hospital should develop processes to identify and follow-up on high risk patients who leave the Emergency Department before completing treatment.

(2) Cambridge Memorial Hospital, Grand River Hospital and St. Mary's General Hospital should initiate corrective actions to ensure that no more than 3% of Emergency Department visits leave the Emergency Department before completing treatment.

(3) Cambridge Memorial Hospital, Grand River Hospital and St. Mary's General Hospital with support from the LHIN should create rapid follow-

up clinics to be used for next day follow up for Emergency Department patients and the management of recently discharged inpatients.

(4) The Waterloo Wellington hospitals should work with the CCAC and the Nursing Homes to develop policies and procedures that minimize transfers to EDs and facilitate the prompt return of nursing home patients to their nursing homes following care in an Emergency Department.

(5) Cambridge Memorial Hospital, Grand River Hospital and St. Mary's General Hospital should develop and implement policies and processes regarding the management of patients referred to the ED by Family Physicians for Specialist care.

(6) The Waterloo Wellington hospitals should collaboratively develop a physician human resource plan for the region.

(7) The Cambridge Memorial Hospital, Grand River Hospital and St. Mary's General Hospital Emergency Departments should establish Clinical Decision Units.

(8) Grand River Hospital should develop policies, processes and practices that will reduce average lengths of stay of inpatients.

(9) The LHIN should work to ensure adequate capacity in a range of long term care treatment settings appropriate to the needs of the population that will include home care, supportive housing, nursing homes and complex continuing care.

(10) The CCAC should develop policies and procedures to ensure and facilitate access to long term care treatment settings appropriate to the needs of potential residents.

(11) The Waterloo Wellington LHIN should provide for the development of supportive housing services with the financial support of the Ministry of Health and Long Term Care.

(12) The Ministry of Health and Long-Term Care should enforce its policy of no payments from hospital funds for ED physician clinical services and extend this

policy to provide for no top up payments of any kind for coverage of physician clinical services.

(13) Cambridge Memorial Hospital, Grand River Hospital and St. Mary's General Hospital should proceed as aggressively as possible to eliminate the use of agency physicians in staffing their Emergency Departments.

(14) Grand River Hospital and St. Mary's General Hospital should establish integrated programs operating under a program management structure for all clinical services.

(15) Grand River Hospital and St. Mary's General Hospital should establish integrated management positions to support the integration of clinical programs.

(16) The Boards of Cambridge Memorial Hospital, Grand River Hospital and St. Mary's General Hospital should appoint a lay member of the Board to serve on the hospital's Medical Advisory Committee.

(17) Grand River Hospital and St. Mary's General Hospital should commence immediately with a national search for a new Chief of Emergency Medicine.

(18) Cambridge Memorial Hospital should proceed as quickly as possible to recruit a new Chief of Emergency Medicine.

(19) The Chiefs of the Department of Emergency Medicine at Cambridge Memorial Hospital, Grand River Hospital and St. Mary's Hospital should conduct an annual, comprehensive performance appraisal of each member of their department.

(20) The Grand River Hospital/St. Mary's General Hospital Department of Medicine should develop and implement a human resource plan that will ensure appropriate resources for consultation and inpatient management at both sites.

(21) Grand River Hospital and St. Mary's General Hospital should create a single Department of

Diagnostic Imaging to support both hospitals headed by a chief with strong leadership skills.

(22) The single Department of Diagnostic Imaging should develop and implement a single call schedule for the provision of services at both St. Mary's and Grand River Hospitals.

(23) Grand River Hospital and St Mary's General Hospital should develop common bed management policies and processes to ensure the availability of beds for ED patients needing admission to the hospital.

(24) Cambridge Memorial Hospital, Grand River Hospital and St. Mary's Hospital should develop consistent processes for receiving, acknowledging, investigating and responding to patient complaints.

(25) The Chief of Emergency Medicine and the Emergency Department Manager at Grand River Hospital should ensure that the paediatric area of the Emergency Department is used only for the care of children and is available 24 hours per day, 7 days per week.

(26) The Chief of Emergency Medicine, the Emergency Department Manager and the CIO at Grand River hospital should implement improvements in the ED Patient Tracking System.

Grand River Hospital

(27) The Chief of Emergency Medicine at Grand River Hospital should develop explicit employment criteria for Emergency Physicians.

(28) The Grand River Hospital Emergency Department Manager should provide for two unit clerks on the day and evening shifts.

(29) The Grand River Hospital VP responsible for Support Services should decentralize portering to the Emergency Department.

(30) The Head of Grand River Hospital's Volunteer Program and the Emergency Department Manager should develop and implement strategies to maximize the use of volunteers in the Emergency Department.

(31) The Chief of Staff, the Chief of Emergency Medicine and the Chiefs of Medicine and Surgery at Grand

River Hospital should develop and implement policies to provide for timely and appropriate response to requests for consultation made by Emergency Department staff.

(32) The Chief of Staff, Chief of Emergency Medicine and the Chief of Diagnostic Imaging at Grand River Hospital should monitor, regularly report and work to improve diagnostic imaging turnaround times.

(33) The Chief of Staff, Chief of Emergency Medicine and Chief of the Laboratory Medicine at Grand River Hospital should monitor, regularly report and work to improve laboratory turnaround times.

(34) The Chief Nursing Officer and the Manager of the Emergency Department at Grand River Hospital should provide for drawing of blood samples by Emergency Department nursing staff.

(35) Chief of Emergency Medicine and Chief of the Laboratory Medicine at Grand River Hospital should introduce an expanded range of point of care testing in the Emergency Department.

(36) The Grand River Hospital Emergency Department Manager should initiate a process redesign project to reduce the time from triage to physician assessment in the fast track area.

(37) The Grand River Hospital Emergency Department Manager should move the mental-health seclusion rooms to the intermediate care area.

(38) The Grand River Hospital/St. Mary's General Hospital Department of Psychiatry should increase the use of day programming and outpatient options.

(39) The Grand River Hospital/St. Mary's General Hospital Department of Psychiatry should develop and implement strategies to shorten lengths of stay at GRH.

St. Mary's General Hospital

(40) The St. Mary's General Hospital Emergency Department Manager and the CIO should acquire an ED Patient Tracking System.

(41) The Chief of Emergency Medicine at St Mary's General Hospital should develop explicit employment criteria for Emergency Physicians.

(42) The Chief of Emergency Medicine and the Emergency Department Manager at St. Mary's General Hospital and the CCAC should develop a plan to extend the range of services delivered in people's homes by CCAC staff and contracted agencies to include such services as low molecular weight heparine and IV antibiotics.

(43) The Chief of Emergency Medicine at St. Mary's General Hospital should develop and implement policies to provide for the generation of a request for consultation for all patients at the time that the need is identified.

(44) The Chief of Staff at St. Mary's General Hospital should ensure that consulting services accept responsibility for and respond to requests for consultation for all referred patients.

(45) The CEO and the Chief of Staff at St. Mary's General Hospital should develop and implement a plan for the creation of a full general internal medicine service at the hospital.

(46) The Emergency Department Manager at St. Mary's General Hospital should initiate process redesign of the care processes for fast track patients.

(47) The Chief of Surgery at St. Mary's General Hospital should work to minimize the frequency of admission and the frequency of use of the 23 hour stay unit by day surgery patients.

(48) St. Mary's General Hospital should develop policies to ensure the timely and efficient flow of admitted patients out of the Emergency Department.

(49) St. Mary's General Hospital should ensure the availability and use of same day stress testing for appropriate Emergency Department patients.

Cambridge Memorial Hospital

(50) Cambridge Memorial Hospital should reconfigure the spaces currently occupied by triage nurses and registration personnel.

(51) The Cambridge Memorial Hospital Emergency Department Manager and CIO should acquire an Emergency Department Patient Tracking System

(52) The Cambridge Memorial Hospital Chief of Staff and Chief of Emergency Medicine should change hospital policy and procedures such that emergency physicians are not responsible for admitting patients to the hospital from the Emergency Department.

(53) The Cambridge Memorial Hospital Chief of Staff and Chief of Emergency Medicine should change hospital policies and procedures such that emergency physicians are not responsible for responding to cardiac arrests outside the Emergency Department.

(54) The Cambridge Memorial Hospital Chief of Emergency Medicine should take responsibility for orienting, mentoring and monitoring MEI physicians.

(55) Cambridge Memorial Hospital should reassign one porter to support the ED and report to the Emergency Department Manager from 1100 to 2300.

(56) Cambridge Memorial Hospital, the CCAC and the LHIN should work together to expand the scope of CCAC services to better support discharge from the CMH Emergency Department.

(57) The Chief of Staff at Cambridge Memorial Hospital should develop policies and procedures for designating responsibility for patients in need of admission from the ED.

(58) The Chief of Staff at Cambridge Memorial Hospital should develop a consultant response time policy.

(59) The Cambridge Memorial Hospital Emergency Department Manager should reconfigure the ED fast-track area and supporting care processes.

(60) The Chief of Emergency Medicine, collaboratively with the Chiefs of Diagnostic Imaging and Laboratory at Cambridge Memorial Hospital should develop medical directives.

(61) The Cambridge Memorial Hospital Emergency Department Manager should empower and train nurses to initiate blood work at triage.

1.0 Introduction

An Investigator to review the delivery of emergency services at the major hospitals in Waterloo Region

The Minister of Health and Long Term Care appointed Mr. Tom Closson as an Investigator to review the delivery of emergency services at the major hospitals in Waterloo Region.

The terms of reference for the Investigator included:

- investigate and report on the emergency service system including medical coverage in Cambridge Memorial Hospital, Grand River Hospital and St. Mary's General Hospital
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- consider the needs of the community and other key stakeholders, the responsibility of support for regional programs among the hospitals, and the need for innovative structures and processes for the delivery of services that maximize opportunities for clinical efficiency and quality

In accordance with the terms of his mandate, the Investigator has provided regular updates to the Assistant Deputy Minister and is submitting his report to the Minister of Health and Long Term Care.

Hay Group Health Care Consulting has provided consulting and analytic support to this undertaking

The Investigator engaged Hay Group Health Care Consulting to provide consulting and analytic support to this undertaking. This report presents the findings of the investigation.

Our approach to this undertaking has focused on populations and providers. We reviewed the utilization of emergency services by the populations of Waterloo and Wellington Counties. Additionally, we have reviewed the utilization of other health services including acute care services, inpatient rehabilitation, complex continuing care, long-term care homes, home care and home support that have a direct or indirect impact on the use of emergency services.

We have also reviewed the structures, processes and practices employed in the delivery of emergency services at the Grand River, St. Mary's and Cambridge Memorial hospitals. This review has included consideration of the patient care processes employed by the hospitals and the effectiveness of these processes.

We have examined both the labour productivity and the staffing patterns employed in the Emergency Departments at

all three hospitals. We have also considered the quality of work life for all Emergency Department staff.

The facilities have been reviewed in order to determine the adequacy of the existing physical plants, as well as the technology supports for the provision of care.

The report which follows contains our comments and recommendations that reflect on these areas of analysis.

In framing the report, we have chosen to provide our observations and recommendations in five separate sections.

- The first section of the report presents the overall performance of Emergency Department services in the Waterloo Wellington Local Health Integration Network (LHIN) and opportunities for the LHIN to assist the hospitals in enhancing the quality of care and service offered to the community.
- The next section of the report presents issues and opportunities for Emergency Department services in Waterloo Region and the required interaction of the services offered by St. Mary's and Grand River Hospitals.
- Separate reports were created to include issues that are specific to each of the three hospitals reviewed (i.e. Cambridge Memorial, Grand River Hospital and St. Mary's General Hospital).

In preparing this report we have engaged in a number of processes. These include a data development and analysis, interviews, observation of care process and supporting technologies and on-site evaluation of physical facilities.

It should be noted that in response to the issues which arose in these communities, other external opinions were sought by the Minister. In preparing this report, the consultants have engaged in discussion with Dr. Andrew Affleck, the former Chief of Emergency Medicine at Thunder Bay Regional Hospital and past president of the Canadian Association of Emergency Physicians, as well as Mr. Ken Deane, Chief Executive Officer and Marco Duic, the Chief of Emergency Medicine of the St. Joseph's Health Center in Toronto. We have ensured that their observations are consistent with those contained in this report.

The Investigator and the consultants wish, at this time, to express their sincerest thanks to the individuals who facilitated this process, as well as those who participated in the

interviews. Without their energy and enthusiasm, as well as their candor, it would not have been possible for the consultants to fulfill their mandate.

2.0 Background

The delivery of emergency services requires highly specialized and skilled providers

It is beyond the scope of this review to present a detailed history of the delivery of emergency services in Ontario. It is, however, important for readers to be cognizant of a growing recognition that the delivery of emergency services requires highly specialized and skilled providers to ensure effective, safe and high quality Emergency Department care. Increasingly, medical and nursing staff that provide services in Emergency Departments have chosen to specialize in this area of practice.

Nurses are assigned to this department on a full-time basis, and many have chosen to seek specialty nursing certification in Emergency Department nursing. In addition, many nurse practitioners, including those trained as primary care and extended class nurse practitioners have chosen to focus their activity in Emergency Departments.

In larger centers such as Kitchener Waterloo and Cambridge physician care in the EDs should be provided by full-time Emergency Physicians

In contrast to a previous model in which Family Physicians provided Emergency Department service on a rotational basis, even in large urban centers, increasingly physicians working in Emergency Departments have chosen to specialize in this area. It is acknowledged that many "Emergency Physicians", particularly in smaller centers, appropriately and necessarily, continue to be Family Physicians who provide service in an Emergency Department on a rotational basis. However, in larger centers such as Kitchener Waterloo and Cambridge, most of the physician care in the EDs is and should be provided by physicians who have assumed full-time careers as Emergency Physicians. They may be either physicians with generalist training who have chosen to pursue Emergency Medicine, or graduates of residency programs in Emergency Medicine offered either by the College of Family Physicians of Canada or the Royal College of Physicians and Surgeons of Canada.

This increasing specialization comes from recognition of the complex needs of patients who present to the Emergency Department, and the desire to maximize every opportunity to provide the highest possible quality of physician and nursing care. This requires, among other things, an awareness of the increasing body of medical literature that pertains to urgent and emergent conditions, and an active quality assurance program which measures, reports upon and seeks to constantly improve outcomes in the Emergency Department.

EDs require care processes that both focus on the needs of patients and families and optimize outcomes

Concomitantly, patient expectation is increasing regarding quality of care, as reflected not only by "hard" medical outcomes, but also the nature of their interactions with providers, the timeliness of care, and access to sophisticated diagnostic technologies and specialty consultation. Hospitals also increasingly recognize that the community's primary window to the hospital is the Emergency Department, and that the ED is principally responsible for establishing the reputation of a hospital in the community.

Thus, it serves not only the community's, but also the hospital's interest to assure the highest possible quality of Emergency Department care. Hospitals should ensure that fastidious attention is paid to the development of care processes that focus on the needs of patients and families and optimize outcomes.

Concomitant with the increasing prevalence of the full-time Emergency Department physicians and specialized ED nursing staff, attention has been paid to providing working conditions and models of remuneration that support recruitment and retention. However, there are continuing and emerging factors that are conspiring to add difficulty to recruiting and retaining ED medical and nursing staff.

The demands of shift work and stress emanating from difficult clinical conditions in the ED contribute to high rates of departure of both nurses and physicians from Emergency Department practice

The demands of shift work, the stress emanating from difficulties in gaining timely access to diagnostic testing, specialty consultation, and inpatient beds, the need to make a high number of critical decisions in a short time frame and the lack of "certainty" or "closure" which comes from dealing with patients in narrow time frames contribute to high rates of departure of both nurses and physicians from Emergency Department practice. The current median career length for Emergency Physicians is estimated to be only approximately 12 years.

Hospitals need to improve their response to the needs of patient care processes in the ED

Unfortunately the factors that contribute most to difficult working conditions for Emergency Department staff are seldom under their direct control. If they are to retain ED staff, hospitals will need to be more attentive to patient care processes in the ED. More timely and more comprehensive responses to the needs of ED care will enhance patient outcomes, patient satisfaction and the quality of work life for ED staff.

For example, hospital strategies that ensure appropriate turnaround time for diagnostic investigations, appropriate consultant response times, and timely patient flow into and out

of the Emergency Department, will improve patient outcomes, patient satisfaction and quality of work life for staff. These are essential in order to recruit and successfully retain Emergency Department staff. These initiatives are beyond the control of ED management and staff. Only the hospital as a whole can improve the hospital's support for the care processes and the staff in the ED. Without a continuing commitment to support the needs of the ED, and delivery on that commitment, hospital EDs will continue to suffer staff turnover and shortages and, more seriously, patients will continue to suffer with long waits for poor quality care.

The issues which led to the current review of ED services in Waterloo Wellington are reflective of how the hospitals have responded to the needs of patients and staff in their EDs. The history of these issues varies in the two communities of Kitchener Waterloo and Cambridge.

2.1 Kitchener Waterloo Background

Since the 1990s, GRH has experienced continuing and increasing difficulty in staffing the ED with physicians

Grand River Hospital has offered emergency services to its community throughout the history of the hospital. Since the 1990s, the hospital has experienced continuing and increasing difficulty in staffing the ED with physicians. From the mid-80s to the 90s a single Emergency Physician group offered services at both the Grand River and St. Mary's sites. The group was academic in focus, hard-working and collegial, and, according to those interviewed, provided excellent service. Some of these physicians left the group to open a walk in clinic. It was reported that their departure resulted in a staffing shortfall in the EDs and some intradepartmental conflict. In the 1990s there was a drift of Emergency Physicians away from the Grand River Hospital to St. Mary's General Hospital, resulting in even more significant shortfalls in medical coverage at the Grand River site. This resulted in Med Emerg International Inc. (MEI) being contracted for the provision of a significant amount of physician services, which continued until the 2000s. It was reported that there were issues related to the services provided by MEI by both emergency physicians and consultant staff as well as the ED nurses. The concerns focused on the cost of the service, the lack of guaranteed continuity of service providers, the quality of care provided and conflict between MEI physicians and on-call consultants at the Grand River Hospital.

By the early 2000s, Grand River was able to recruit a complete complement of Emergency Physicians. However, during the past couple of years, for a variety of reasons,

including, but not limited to, the relationship with consulting physicians, this core of physicians has been decreasing in size and the hospital is currently employing MEI physicians to cover a significant number of ED shifts.

Recommendations of previous reviews of ED at GRH have not yet been implemented

There have been previous reviews of ED services at Grand River Hospital including those conducted by Mr. Dennis Timbrell, as part of his role as Investigator for North Waterloo hospitals in 2003 and by Dr. Isser Dubinsky, who conducted a review of ED services at GRH working with Miltom Consulting in 2004.

Mr. Timbrell's review identified several areas of concern. These included, at that time, a lack of progress with regard to the clinical realignment of services directed by the Health Services Restructuring Commission (HSRC), a lack of clarity regarding ambulance directives, the failure of the medical staff organization to fulfill the directives of the HSRC, a lack of cooperation and coordination between the hospitals regarding the siting of various programs, and concerns regarding consultant support,

Mr. Timbrell's review resulted in several recommendations, but with particular reference to this review, he recommended that:

- The hospitals should establish a joint Board committee (JBC) to focus on hospital service delivery,
- The hospitals should re-establish a Joint Executive Committee (JEC) with representation from Grand River Hospital, St. Mary's General Hospital and Cambridge Memorial Hospital.
- Emergency services necessary to respond to the urgent needs of the Kitchener Waterloo community should be located at Grand River Hospital [with the exception of cardiac and respiratory services].
- The hospitals should establish single medical departments with a single leader for each department.

With specific reference to Emergency Department Services, Mr. Timbrell specifically recommended that the Emergency Physicians become one unified group serving both hospitals under a single Chief of Emergency Services. Among the reasons offered for this suggestion was that skills would then be maintained across the range of emergency services, and that equity within the physician group would be established, and physician recruitment enhanced. He further

recommended that physicians rotate between the two Kitchener Waterloo hospitals.

Importantly, Mr. Timbrell also noted that the imaging services available at the two Kitchener hospitals acted independently, and in order to comply with the HSRC directions, and to ensure a comprehensive integrated service for patients, he felt it would be necessary for the imaging service to integrate itself fully under the direction of a single service Chief. Suggestions were also made regarding the need for the hospitals to have a single information technology platform, including a shared PACS system.

Dr. Dubinsky's review of ED services at GRH, conducted subsequent to that of Mr. Timbrell, suggested that a number of changes were necessary. These included recommendations regarding the physical plant, the information technology platform, staffing [including non physician or nurse staffing], and the administrative structure, not only intradepartmental, but hospital wide. Additional recommendations were made regarding establishing clear and explicit performance standards for consultants responding to Emergency Department requests, as well as improving the flow of patients out of the Emergency Department.

Importantly, at the time of this review, many of the recommendations of these previous reviews had not yet been acted upon.

2.2 Cambridge Memorial Hospital Background

It is reported that 30,000 people in Cambridge and surrounding communities do not have a Family Physician

The Cambridge Memorial Hospital has a different history regarding its department of Emergency Medicine. The hospital is in a community of approximately 130,000 people. It is reported that 30,000 people in Cambridge and surrounding communities do not have a Family Physician. As might be expected, this results in a significant number of people seeking care in the Emergency Department which might otherwise be provided by a Family Physician in a community-based environment. As a result, Emergency Department care providers may be attempting to provide comprehensive primary care in a venue which is, clearly, not designed for that purpose.

From 1997 to 2001 the Cambridge Hospital Emergency Department underwent a significant renewal process. During this period the physicians negotiated a top-up arrangement with the hospital in order to ensure a guaranteed hourly

minimum, which resulted in the hospital reportedly spending between $300,000 and $500,000 per year to guarantee 39 hours of Emergency Department coverage per day.

The Emergency Physicians enrolled in an Alternative Funding Arrangement (AFA) with the Ministry of Health in 2002. At that time the AFA provided them with roughly the same rate of remuneration they had been receiving in the previous top-up arrangement.

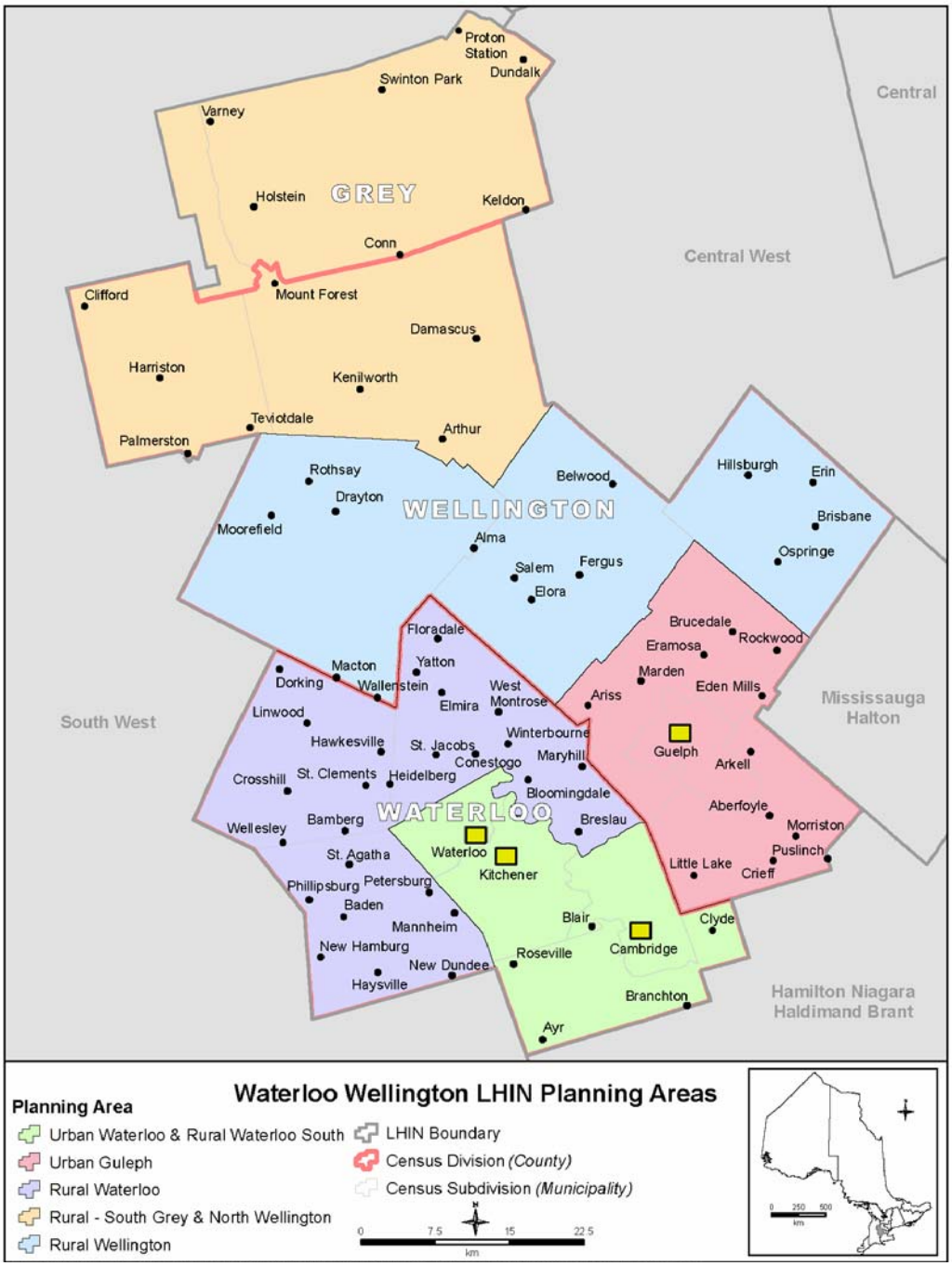
However, after one year, owing to a decrease in reported patient volume, the Ministry of Health decreased the number of funded hours by four hours per day. The group, then comprised of 11 full-time and four part-time physicians, addressed the decrease in funded hours of service by decreasing the number of shifts available for part-timers. The reduction in hours for part-time staff and the increased responsibilities for coverage by the full time staff resulted in decreasing morale among Emergency Department staff. The part-time physicians then exited from the group, leaving behind a group comprised entirely of full-time Emergency Physicians. Approximately 2 years ago, the group began to experience increasing problems with recruitment, at least in part, according to representatives of the group, because the financial arrangements for primary care practices, such as family health networks and family health groups, attracted Emergency Physicians out of Emergency Department practice.

Eighteen months ago, the group was left with only seven physicians. At the end of March 2005 the group signalled its intention to resign from the AFA in an effort to negotiate improved terms of remuneration. To the group's surprise, the Ministry informed them that upon resignation from the AFA, the group would automatically revert to a fee-for-service model. This has led to considerable resentment among some remaining members of the Emergency Department. Subsequent discussion resulted in re-evaluation of the workload and the reinstatement of the AFA with no reversion to a FFS model. At the current time, the group is finding it challenging to provide 24-hour coverage with the remaining cohort of physicians. In their opinion, this difficulty is exacerbated because of persistent rumours regarding top-ups being paid to Emergency Physicians in Guelph, Brantford, and Hamilton. The issue of top-ups will be dealt with in later sections of this report.

3.0 ED Services in Waterloo Wellington

3.1 Waterloo Wellington LHIN

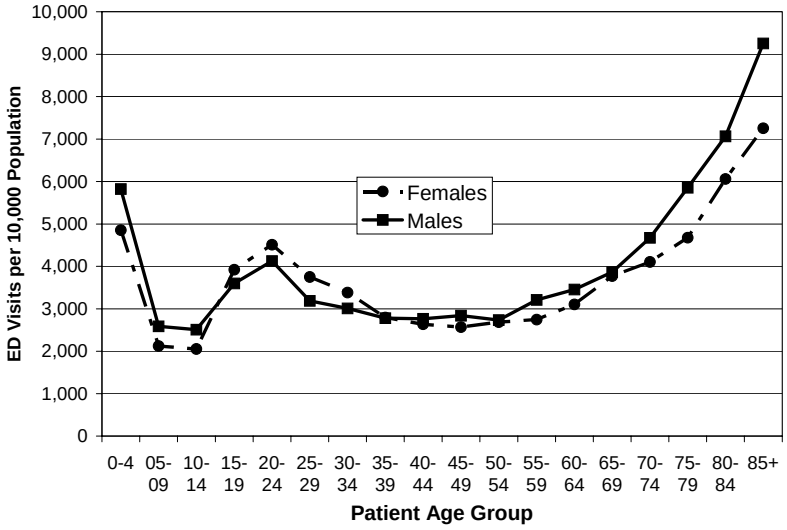
The figure following presents the geography of the Waterloo Wellington Local Health Integration Network.



3.2 Utilization of Emergency Department Services

The following table presents the Emergency Department utilization rate for residents of the Waterloo Wellington Local Health Integration Network by Age and Gender. As can be seen, the use of EDs increases with age; the rate of use increases significantly for the population over the age of 65 for both men and women. The population over 75 years uses EDs more than twice as often as the population from 30 to 55. Also, very young children are heavy users of EDs. This pattern of use of EDs by age and gender is similar to patterns of use in other LHINs in Ontario.

Exhibit 1: WW LHIN Residents ED Visits per 10,000 Population by Age and Gender (2005/06)



It is important for EDs to develop policies, processes and practices that address the unique needs of the elderly

Given the heavy use of EDs by the elderly, it is important for EDs to develop policies, processes and practices that address the unique needs of the elderly. It was reported that ED staff generally need better knowledge of the differences in how the elderly present with acute illness and a better understanding or more consideration of the importance of the "home situation" in dealing with the health problems of the elderly. There is also a need for care maps that relate specifically to the needs of the elderly.

The health care system in Waterloo Region should develop improved approaches to meeting the needs of the elderly in the EDs. These approaches should include:

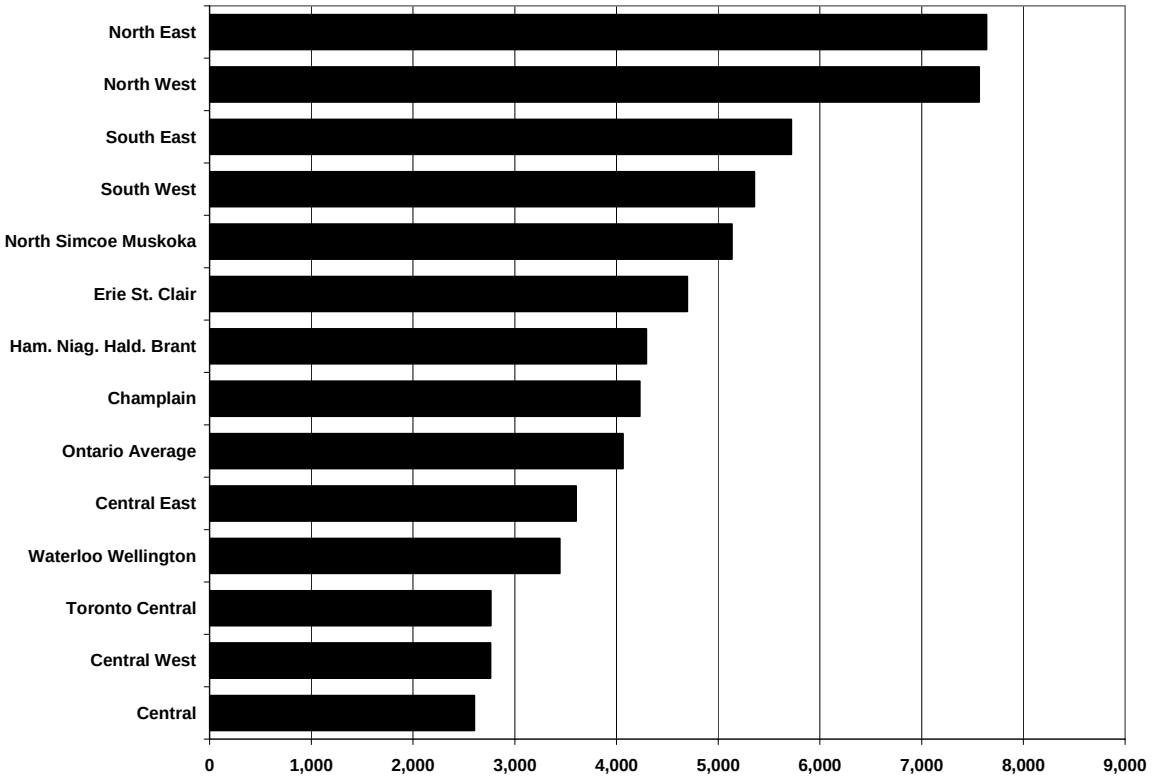
- The Waterloo Region hospitals should provide Emergency Department staff with formal and ongoing education regarding the unique needs of the elderly with specific

emphasis on management of delirium, prevention of falls and pain management in the elderly

- The Waterloo Region hospitals should ensure that a geriatric consultation team is available to respond to the needs of elderly patients in each Emergency Department
- The Waterloo Region hospitals should implement the Inter RAI Emergency Department screening tool in all three Emergency Departments

The exhibit following presents the age/gender standardized ED utilization per population by LHIN. Although lower than the provincial average, residents of the Waterloo Wellington LHIN have a higher overall rate of utilization of Emergency Department (ED) visits per population than the LHINs in and around Toronto. However, the population of the LHIN uses EDs less than all other Southern Ontario LHINs.

Exhibit 2: 2004/05 Age/Gender Standardized ED Visits per 10,000 Population by Patient LHIN

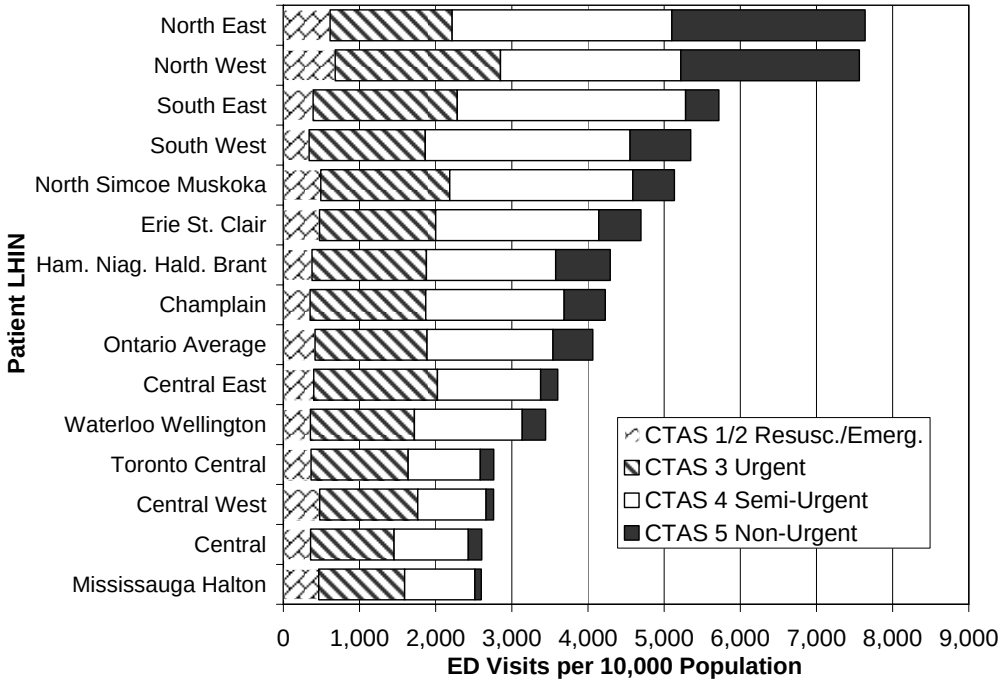


All Ontario hospitals are required to track their emergency department (ED) visits and to categorize each visit according to the Canadian Triage Acuity Scale (CTAS). The five CTAS levels are:

- CTAS 1- Resuscitation
- CTAS 2 – Emergent
- CTAS 3 – Urgent
- CTAS 4 – Semi-Urgent
- CTAS 5 – Non-Urgent

The exhibit following presents the age/gender standardized ED utilization per population by LHIN according the Canadian Triage Acuity Scale (CTAS) level. As can be seen, the distribution of LHIN resident ED visits by CTAS level is similar to that of residents of other Southern Ontario LHINs. (with the exception of the Toronto Area LHINs).

Exhibit 3: 2004/05 Age/Gender Standardized ED Visits per 10,000 Population by Patient LHIN and CTAS Level

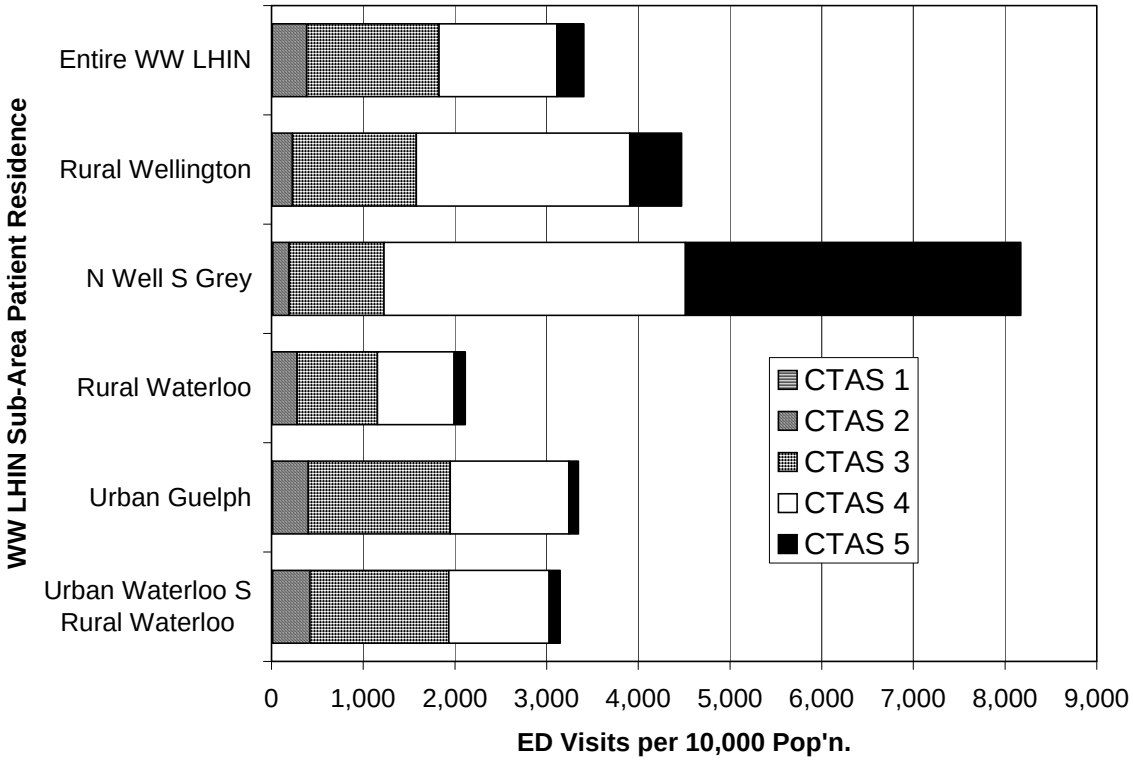


The exhibit following presents the age-gender standardized ED utilization rates for sub areas within the LHIN. As can be seen there is wide variation in the use of EDs within the LHIN:

- The high rate of ED visits (especially semi-urgent and non-urgent visits) by residents of North Wellington South Grey is a result of physicians providing a large amount of primary care through the Emergency Departments of the local hospitals. This is largely explained by the practice of Family Practitioners staffing the ED seeing their office visits in the ED.

- Rural Waterloo has a very low rate of use of EDs for all CTAS levels except Resuscitation. This is likely explained by the high degree of self sufficiency of the Mennonite communities located in this part of the LHIN.

Exhibit 4: 2004/05 Age/Gender Standardized ED Visits per 10,000 Population by LHIN Sub Area and CTAS Level



3.3 Emergency Department Performance

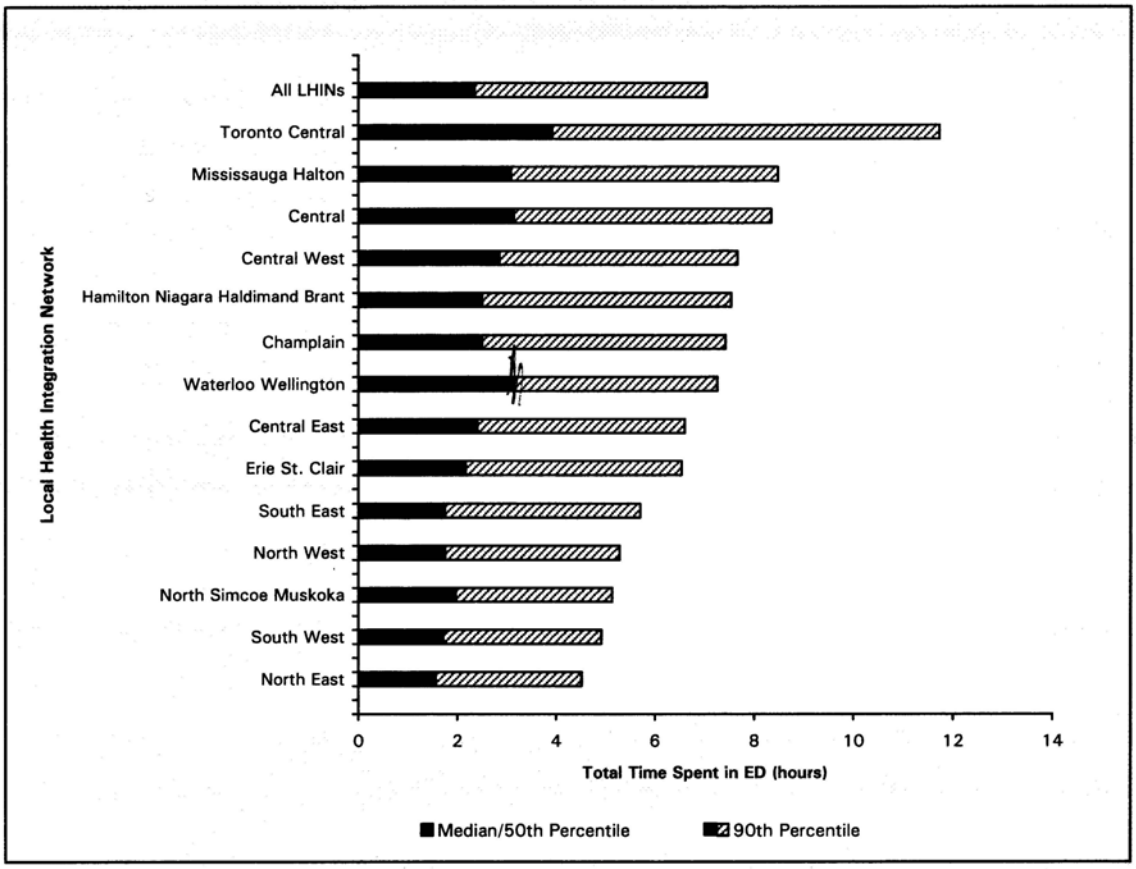
In August of 2006 the Ontario Hospital Association, Ontario Medical Association, and Ministry of Health jointly published the report of a working group headed by Dr. Robert Bell, CEO of University Health Network, entitled "Improving Access to Care: Addressing System Issues". This tripartite report, commissioned primarily to deal with Emergency Department overcrowding, reviewed the performance of Emergency Departments across the province, and has suggested performance targets in a variety of areas. In this section of the report we will review the standards which have been suggested, and compare the performance of the larger Waterloo Wellington hospitals to these standards.

3.3.1 Length of Stay in Emergency Departments

Patients visiting Waterloo Wellington EDs wait longer to see a physician than patients visiting hospitals in any other LHIN in Ontario

A recent report by CIHI: "Understanding Emergency Department Wait Times: How Long Do People Spend in Emergency Department in Ontario?" found that median total time for patients visiting Emergency Departments in Waterloo Wellington in 2005/06 was longer than for patients visiting Emergency Departments in most other LHINs in Ontario. However, the 90th percentile time, although above that for patients visiting hospitals across all the LHINs, was similar to several other Southern Ontario LHINs and much lower than for patients visiting EDs in Toronto Central. These results are presented in the exhibit following.

Exhibit 5: Total Time Spent in ED by Hospital Location in LHIN, Ontario, 2005-2006[1]



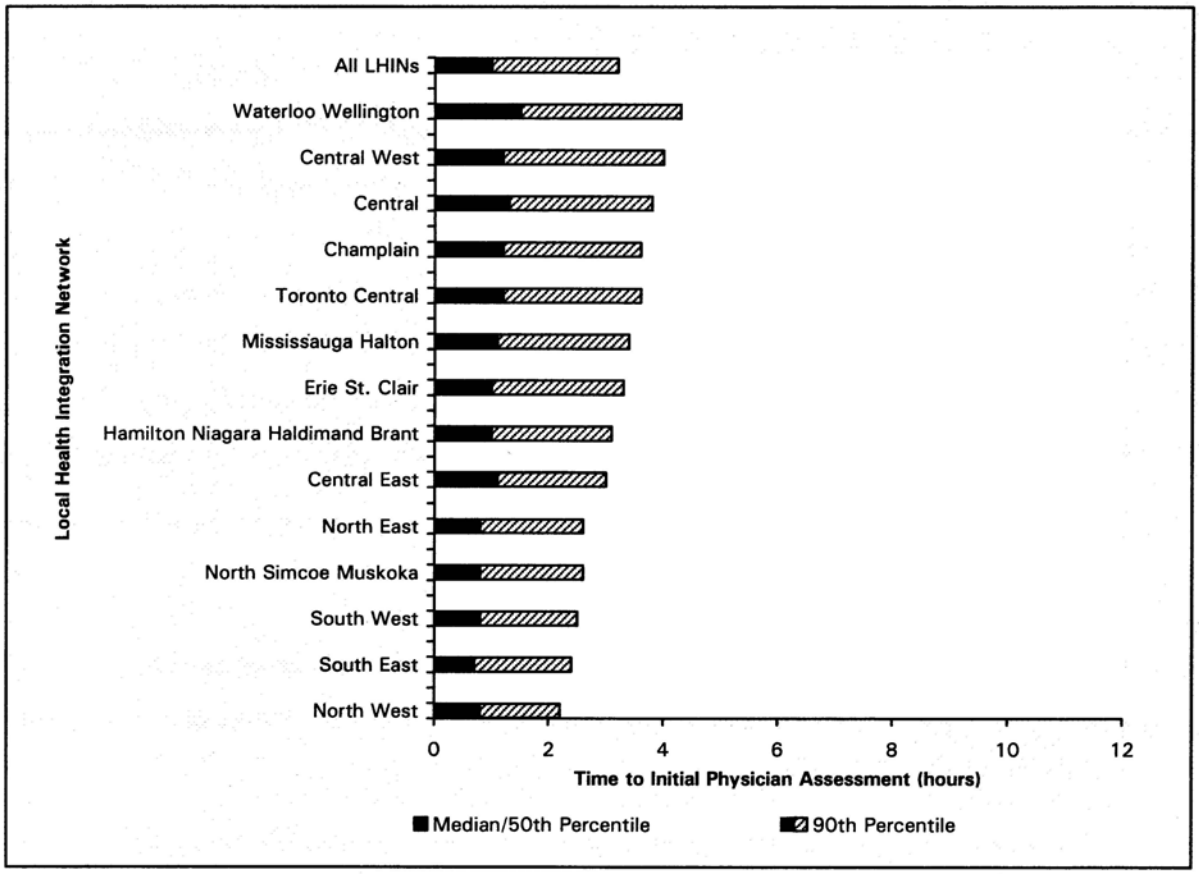
Note: These data represent visits to 167 Ontario-based emergency departments.

Source: NACRS, 2005–2006, CIHI.

[1] "Understanding Emergency Department Wait Times: How Long do People Spend in Emergency Departments in Ontario?" CIHI, January, 2007.

Patients visiting Waterloo Wellington Hospitals' EDs in 2005/06 waited longer from triage to initial physician assessment than patients visiting EDs in any other LHIN in Ontario. Both the median wait time and the 90th percentile wait time were longer. 50% of patients visiting Waterloo Wellington hospitals' EDs waited more than 1.5 hours from triage to assessment (the median value) and 10% of patients waited more than 4.3 hours from triage to assessment (the 90th percentile value). These findings are presented in the Exhibit following.

Exhibit 6: Time to Initial Physician Assessment by Hospital Location in LHIN, Ontario, 2005-2006[2]



Note: These data represent visits to 167 Ontario-based emergency departments.

Source: NACRS, 2005–2006, CIHI.

The working group suggested targets for lengths of stay in Emergency Departments

The provincial working group headed by Dr. Bell suggested targets for lengths of stay in the province's Emergency Departments.

[2] Ibid

- 90% of CTAS Level 1, 2 and 3 patients should have an Emergency Department length of stay less than or equal to six hours (360 minutes).
- 90% of CTAS Level 4 and 5 patients should have a total Emergency Department length of stay less than or equal to four hours (240 minutes).

This length of stay is measured from the time of the first patient encounter with staff of the Emergency Department until patient departure from the ED to home, a long-term care home, a clinical decision unit, an operating room, an inpatient unit or to another hospital. Ideally, the first encounter in the ED is the triage nurse assessment. If hospitals are currently registering patients prior to triage, best practice would suggest processes be realigned so that triage is the first ED encounter.

Patients have very long length of stay in the EDs in Waterloo Region

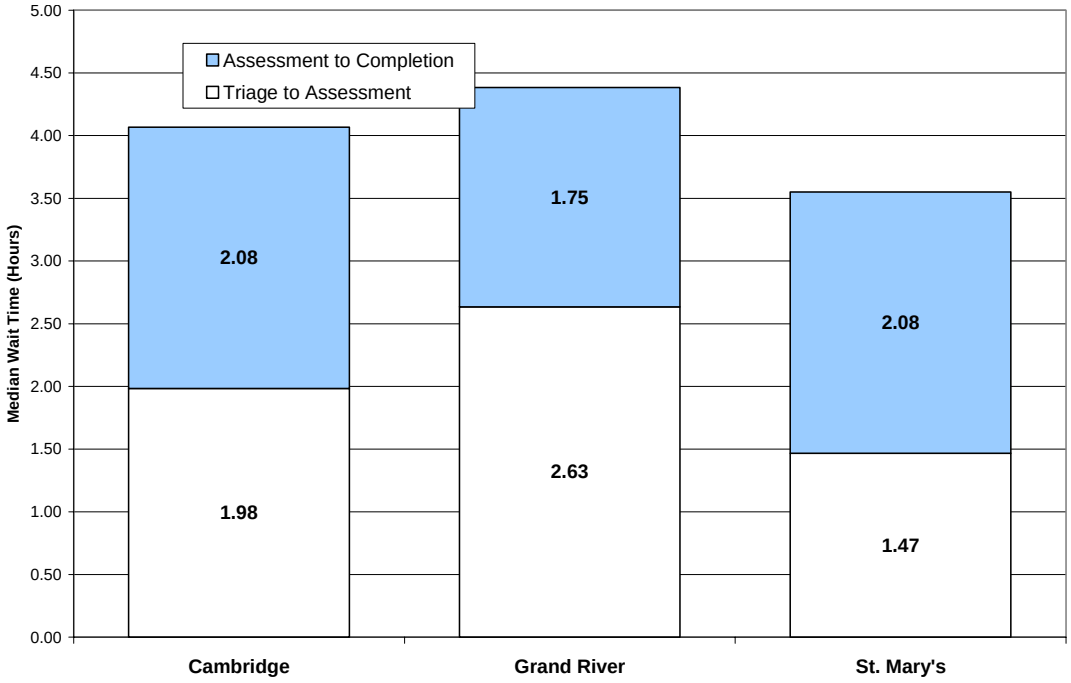
Current performance of the Waterloo Region hospitals relative to these standards was examined using NACRS Data for April to September 2006 provided by the Waterloo hospitals[3]. These data sets provide elapsed times from triage to physician assessment and from physician assessment to patient departure. These data confirm that patients have long lengths of stay in the EDs in Waterloo Region. Shortening ED visit lengths is imperative to improve the quality of patient care and the quality of work life for ED staff.

3.3.1.1 Length of Stay for CTAS Level 1, 2 & 3 ED Visits

The median time from triage to visit completion for CTAS levels 1, 2 & 3 ranges from 3.55 hours at St. Mary's General Hospital to 4.38 hours at Grand River Hospital. The variation in LOS in the hospital EDs is mainly due to differences in the waiting time between triage and physician assessment. The median time waiting from triage to assessment by a physician for CTAS level 1, 2 and 3 patients varies widely from 1.47 hours to 2.63 hours across the three Waterloo Region hospitals. There is less variation in the time from the assessment being commenced to the time the visit is completed, with a range from 1.75 to 2.08 hours.

[3] Records with missing wait time values were excluded from these analyses.

Exhibit 7: 2006/07 YTD Median Times for CTAS 1, 2, 3 Visits – All Shifts



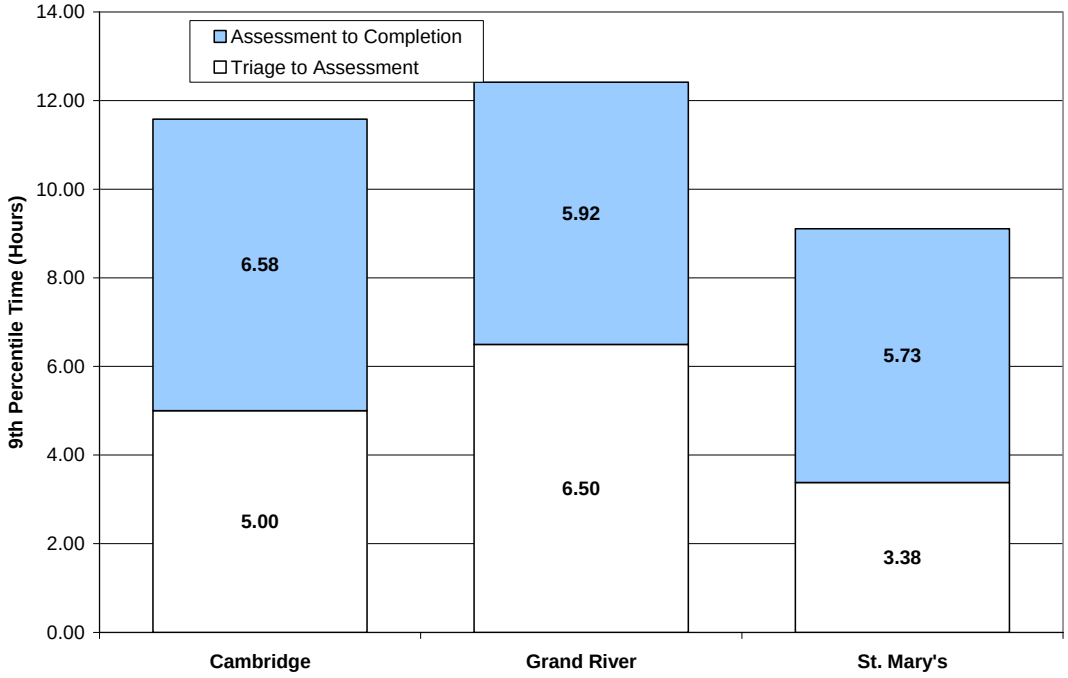
None of the Waterloo Region hospitals achieve the 6 hour performance standard for a completed CTAS Level 1,2 or 3 ED visit

The performance standard recommended by the working group states that 90% of visits should be completed within six hours for CTAS Level 1, 2 & 3 patients.

The Exhibit following presents the 90th percentile performance to the Waterloo Region hospitals for CTAS Level 1, 2 & 3 ED visits (the 90th percentile is the value where the durations of 90% of the visits are shorter than the value and the durations of 10% of the visits are longer than the value). As can be seen, looking at the 90th percentile times (rather than median times) across all shifts, none of the hospitals achieved the 6 hour target for 90% of completed visits.

For many patients at Waterloo hospitals the visit times are quite long. The 90th percentile of patient visits at Grand River is over 12 hours; 90th percentile of patient visits at Cambridge Hospital is almost 12 hours, and 90th percentile of visits at St. Mary's is slightly over nine hours. Again, it would appear that the variation in this time interval is in the time waiting from initial triage to physician assessment.

Exhibit 8: 2006/07 YTD 90th Percentile Times for CTAS 1, 2, 3 Visits – All Shifts



Patients wait particularly long times from the time of triage to seeing a physician for a medical assessment

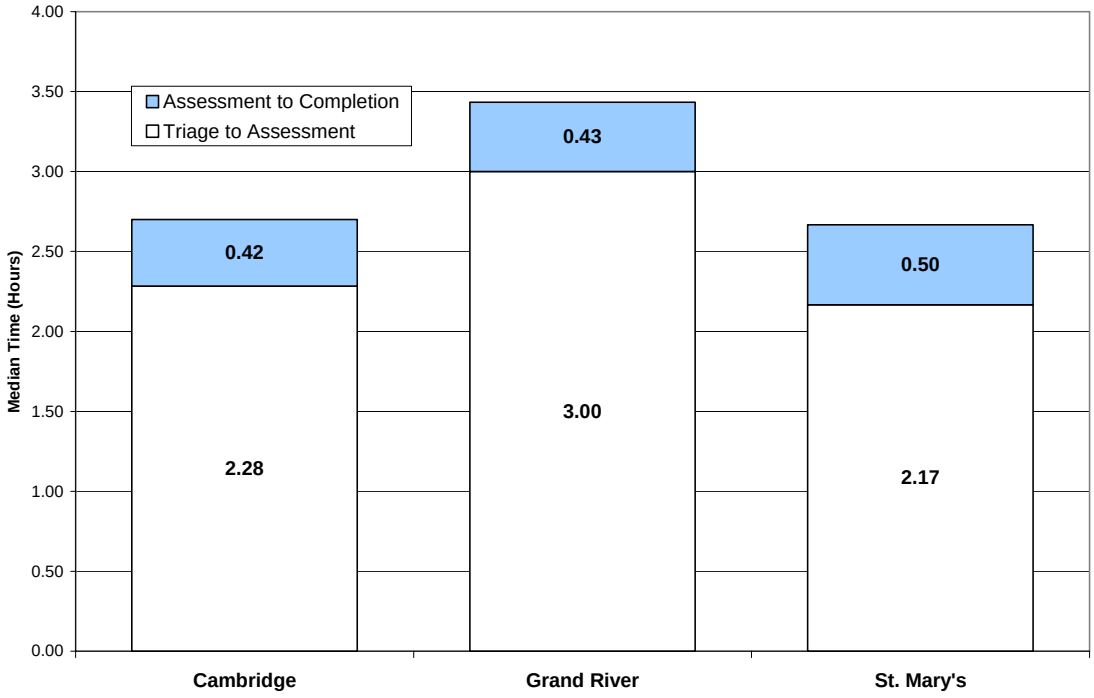
The 90th percentile wait from triage to assessment ranged from 3.38 hours at St. Mary's to 6.5 hours at Grand River. All of these times are too long. The time from assessment to completion of the visit can also be quite long with the 90th percentile ranging from 5.7 hours at St. Mary's to in excess of 6.5 hours at Cambridge Memorial Hospital.

Assessing the causes of these delays in treatment for CTAS Level 1, 2 & 3 patients is complex. A more detailed analysis is presented in the hospital by hospital performance reviews. In later sections of this report we also provide specific recommendations as to methodologies which can and should be implemented to address these delays.

3.3.1.2 Length of Stay for CTAS Level 4 & 5 ED Visits

There is significant variation in median ED visit times for CTAS Level 4 and 5 visits. The median total visit length at Grand River Hospital is just under 3.5 hours, with Cambridge and St. Mary's achieving slightly better performances, with median lengths of stay of approximately 2.75 hours.

Exhibit 9: 2006/07 YTD Median Times for CTAS 4, 5 Visits – All Shifts



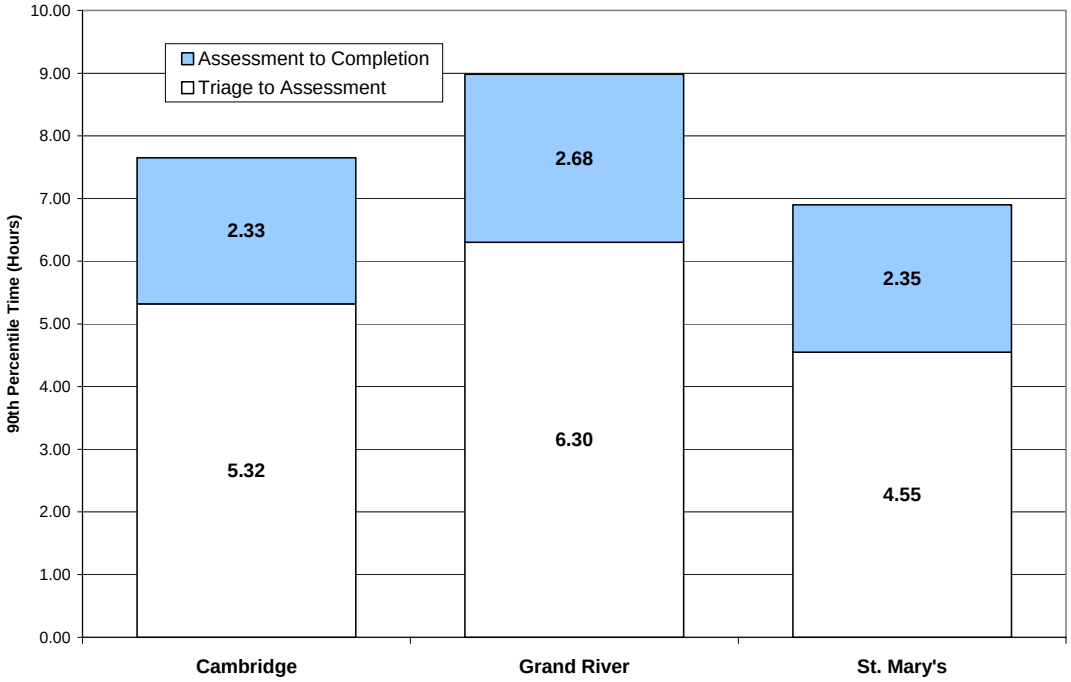
The performance standard recommended by the working group states that 90% of visits should be completed within four hours for CTAS Level 4 & 5 patients.

None of the hospitals achieved the 4 hour target for a completed visit for 90% of patients

The Exhibit following presents the 90th percentile performance to the Waterloo Region hospitals for CTAS Level 4 & 5 ED visits. As can be seen, looking at the 90th percentile times (rather than median times) across all shifts, none of the hospitals achieved the 4 hour target for a completed visit for 90% of patients.

Visit times can be quite long with the 90th percentile duration of patient visits at Grand River at almost 9 hours; the 90th percentile duration of patient visits at Cambridge Hospital is over 7.5 hours, and 90th percentile duration of patient visits at St. Mary's is almost 7 hours. Again, it would appear that the greatest percentage of this time is consumed waiting from initial triage to physician assessment.

Exhibit 10: 2006/07 YTD 90th Percentile Times for CTAS 4, 5 Visits – All Shifts



3.3.2 Reducing Length of Stay in the ED

There are a variety of strategies which should be employed at all three sites in order to reduce length of stay in the Emergency Department.

3.3.2.1 Confirm Triage Accuracy

In order to compare performance to established standards for timeliness to treatment by triage category, it is essential that the acuity category assigned to patients is accurate. Based on the findings of this review, there is reason to believe that the accuracy of triage acuity assessment at each of the sites could be improved. It is important to ensure that patient acuity is appropriately assessed both to ensure that priorities for care are appropriately assigned and to ensure that patient acuity and departmental workload are measured accurately. Regular (monthly) audits of 30 charts per triage nurse and supporting training support have been shown to improve the quality of triage categorization.

3.3.2.2 Streaming CTAS 3 Patients

The CTAS Level 3 category includes patients with a wide range of acuities. A significant number of these patients may be appropriately directed to a fast-track area for assessment and treatment. CTAS Level 3 patients designated for

treatment in this model should have minimum needs for investigation and treatment, and should be completely stable hemodynamically. Streaming of some CTAS Level 3 patients to a fast track area will provide them with accelerated access to care.

3.3.2.3 Medical Directives

The availability of medical directives at triage will greatly hasten the process of care

The availability of medical directives at triage will greatly hasten the process of care. Such directives should be developed collaboratively by physicians and nursing staff, as well as other departments which may offer important input, particularly as it pertains to best practice for the investigation and/or management of a variety of conditions. For instance, including laboratory or diagnostic imaging staff in discussions regarding the appropriate laboratory or imaging investigations to be conducted, may minimize the amount of testing, and ensure the most appropriate use of investigations.

It will be impossible to develop medical directives for all clinical conditions, but they should be developed for 25 to 50 of the most common presenting symptoms. There are an array of standards documents in the literature providing standards for the investigation and management of common conditions such as abdominal pain, vaginal bleeding in pregnancy, asthma, or gastroenteritis in children.

In addition to developing these medical directives, in order to ensure that they are used appropriately and that there is not over utilization of diagnostic tests, it will be important for physicians and nurses to plan collaboratively for their implementation. Implementation should include an education program for triage nurses to ensure the best use and application of these directives.

Once developed, triage nurses should be empowered to draw appropriate blood samples, perform ECG's, and initiate intravenous therapy, and/or order x-rays when appropriate. Individual institutions may choose to initiate the directives in a secondary triage area, or empower the nurse with primary care responsibility for a patient to initiate the directive, on the assumption that it will occur simultaneous with, or immediately after, the triage process.

3.3.2.4 Emergency Department Care Maps

A wide array of emergency department conditions lend themselves to the development of care maps for treatment. These include, for instance, asthma, croup, and head injuries.

The development and circulation of such care maps will shorten the process of care, and facilitate nurse decision-making. They should be developed after a review of current medical evidence, and implemented as a series of medical directives

3.3.2.5 Clinical Decision Support Software

Diminishing turnaround time and cost effective/cost efficient decision making at all sites will be facilitated by ensuring that only those tests necessary in the emergency department are conducted, and directed by a best practice model. The purchasing and installation of clinical decision-support software, not only in all emergency departments, but hospital wide, will greatly assist physicians in making cost-effective and cost efficient decisions regarding the use of diagnostic tests and alternative treatments.

3.3.2.6 Turnaround Time

A major impediment to throughput in the emergency department at Grand River Hospital is prolonged turnaround time for both laboratory and diagnostic imaging

It has been suggested that a major impediment to throughput in the emergency department at Grand River Hospital is prolonged turnaround time for both laboratory and diagnostic imaging.

With respect to the existence, causes and magnitude of the problem with turnaround times for laboratory tests, there was a dichotomy between laboratory and emergency department staff. Unfortunately, information to measure the nature and scope of the problem was unavailable to this review. In order to solve the problem it will be necessary to monitor and report times for the ordering of tests, drawing of specimens, collection of specimens, arrival in the laboratory, completion of testing, reporting back to the emergency department, and emergency physician receipt of the test results. Once such data have been developed and analyzed, the sources of any problems can be identified and process improvements designed and implemented to reduce the turnaround time for laboratory tests.

3.3.2.7 Follow-Up Assessment

It should be possible to identify a cohort of patients who may be discharged from the emergency department, and return the following day to access specialized investigations. This will not only shorten time in the emergency department but may also allow some patients to be sent home for outpatient follow up rather than being admitted to the hospital. It will, however, require that the diagnostic imaging department (and perhaps other departments) establish, and protect, time slots for emergency patients who return the following day for follow up investigations.

3.3.2.8 Chart Flow

Emergency Department throughput will also be minimized by the development and use of efficient processes of chart flow. A system must exist in each department to ensure that after a physician assessment has occurred, a single individual is responsible for receiving and processing requests for treatments, investigations, consultation, or other orders. Once results have returned, they should be collated, placed on the patient's chart, and the physician notified within a maximum of 10 minutes. A disposition decision should be forthcoming.

3.3.2.9 Waiting for Results Area

Some patients assigned to higher triage categories may, after the conduct of the history and physical, be identifiable as unlikely to be in need of consultation or admission to hospital. However, in the interests of patient safety, such patients should not be discharged from the department until investigations which have been conducted return to the department to confirm the safety of the discharge decision. Such patients need not occupy a stretcher after the history and physical while they wait for results to return. The Emergency Departments could create a sitting area where such patients may sit in street clothes while awaiting confirmation of the normalcy of their investigations. This will greatly accelerate and facilitate the throughput of patients in the waiting room to stretchers, which will not be occupied by patients well enough to sit in a chair and wait for the return of their investigations

3.3.2.10 Use of Nurse Practitioners/Physician Assistants

Cambridge Memorial Hospital has been designated as a pilot site for a trial of the use of Physician Assistants and Nurse Practitioners in the ED. These individuals will not be available to either the St. Mary's or Grand River sites for some time. It will, however, be important for emergency department care providers in Kitchener to remain in contact with their colleagues in Cambridge on a regular basis to receive ongoing evaluations of this pilot.

However, even outside the trial project, Nurse Practitioners can and should be incorporated into the care delivery model in all area emergency departments. The department may choose to use either:

- a primary care Nurse Practitioner, who could be assigned to a fast-track area,

or

- an acute care Nurse Practitioner, who may be used either for the rapid assessment and initiation of treatment of patients in CTAS categories one to three or for 'fast track patients',

or both a primary care Nurse Practitioner and an acute care Nurse Practitioner.

3.3.3 Admitted Patients in the ED

Most patients wait a relatively small amount of time in Waterloo Wellington Hospital EDs following the decision to admit

A further performance measure of importance is Emergency Department time to admission. This interval is measured from the time an admission order is written or a bed request is made until the patient departs from the Emergency Department to an inpatient bed, an operating room, a critical care bed, or critical decision unit.

Our analysis of the time from the decision to admit to departure from the ED was developed using data from the FY2004/05 NACRS Database and Inpatient Discharge

Abstract Database[4]. The following table presents the median, 80th percentile and 90th percentile of the elapsed time from the ED's decision to admit a patient until the patient left the ED in FY2005.

Exhibit 11: Time (in minutes) from Decision to Admit Until Departure from ED, 2004/05

Hospital	Cases	Median	80th Percentile	90th Percentile
Cambridge Memorial	4,943	70	128	182
Grand River	6,351	76	149	223
St Mary's	3,387	49	201	735

As can be seen, most patients wait a relatively small amount of time in the ED following the decision to admit until they are moved to an inpatient area of the hospital. Half of the patients at all hospitals wait less than 1.25 hours (75 minutes) from the time of a decision to admit until departure from the ED. Only a small percentage of patients (less than 20%) wait for extended periods of time ranging from over 2 hours at CMH to 2.5 hours (150 minutes) at GRH to more than 3.33 hours (200 minutes) at St. Mary's. A few patients at St. Mary's (10%) wait for extremely long periods of over 12 hours (720 minutes).

Often the cause of an extended time to admission is that patients are admitted to hospital but without an available bed. These patients are forced to await the availability of inpatient bed on a stretcher in the ED. This is reflected by the midnight census of admitted patients being held in the ED as reported to the MOHLTC in the hospitals' MIS trial balance.

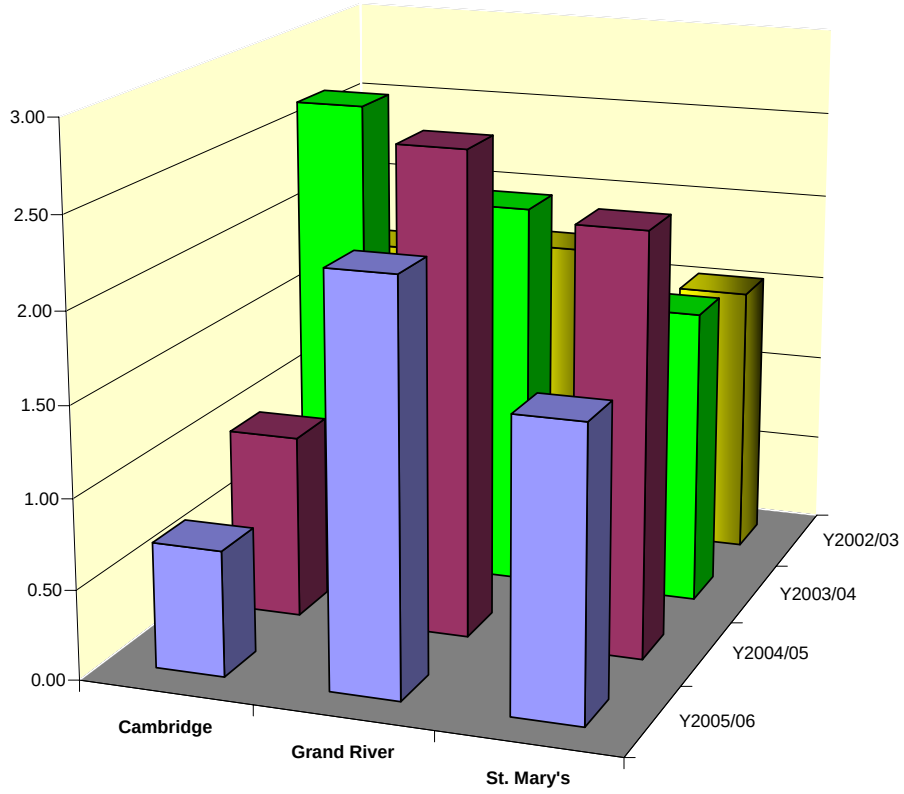
The number of admitted patients in the ED of a Waterloo Region hospital averages fewer than 2.5 patients per night

The average number of admitted patients in the Emergency Department at midnight (the midnight census of admitted patients in the ED) for the years 2002/03 to 2005/06 by hospital is presented in the exhibit following. Of note, although the actual number of admitted patients on a given day is subject to wide variations, these average numbers of

[4] This analysis was conducted using the specifications detailed in LHIN IMSC Data Request #231 submitted by Bruce Lauckner. The number of visits with non-missing values used in calculations of elapsed time between ER Decision to Admit Date/Time and Date/Time Patient Left ER. These calculations also excluded visits where Date/Time Patient Left ER was reported as being prior to ER Decision to Admit Date/Time. There were 21011 records retrieved from the Inpatient DAD that had valid values in these date/time fields and with valid health numbers. Of these records, 19969 were matched to NACRS EMG records.

admitted patients are not large when compared to the problems experienced by hospitals in other communities. The number of admitted patients in the ED in the Waterloo Region hospitals averages fewer than 2.5 patients per night. Also, although these numbers were increasing at Grand River Hospital and St. Mary's General Hospital from 2000-2003 to 2004/05, the number declined in 2005/06. The average number of admitted patients in the ED has been steadily decreasing in the Cambridge Hospital from 2003-2004 to 2005-2006. This issue, while needing to be monitored, is not the major operational difficulty for any of the 3 Emergency Departments at this time.

Exhibit 12: Average Daily Census of Admitted Patients in ED, 2005/06



However, the reported number of admitted patients in the ED may be underestimated. It is reported patients who will inevitably be admitted are being "held" overnight at St. Mary's and Grand River Hospitals waiting for consultation and an admission order from a specialty service in the morning. Such a pattern of practice artificially lowers the number of admitted patients in the Emergency Department, but the patients are occupying ED beds overnight and adversely impacting the care of patients in the Emergency Department.

3.4 Discharge Disposition of ED Patients

The discharge dispositions of ED patients at each hospital are presented in the following exhibit.

Exhibit 13: 2006/07 YTD ED Visit Discharge Disposition – All CTAS Levels[5]

Discharge Disposition	Cambridge	Grand River	St. Mary's	Grand Total
Disch to Place of Residence	71.7%	71.1%	81.5%	74.6%
Triaged, Left Before Completing Treatment	10.4%	12.6%	4.8%	9.5%
Admitted to Critical Care or OR	3.6%	2.5%	0.9%	2.3%
Admitted as Inpatient	9.9%	11.3%	7.0%	9.5%
Transfer to Other Acute Care	0.5%	0.8%	1.3%	0.9%
Transfer to Other Non-Acute Care	0.1%	0.2%	0.2%	0.2%
Death after Arrival	0.1%	0.1%	0.1%	0.1%
DOA (Including in ED)	0.0%	0.0%	0.1%	0.0%
Transfer to Day Surgery	0.0%	0.1%	0.1%	0.1%
Transfer to Clinic	0.7%	0.1%	0.3%	0.3%
Code 15 (Unknown)	2.9%	1.2%	3.8%	2.6%
Grand Total	100.0%	100.0%	100.0%	100.0%

The full year 2005/06 ED visit discharge disposition by CTAS level is presented in an Appendix to this report.

A relatively high percentage of patients visiting the EDs are being admitted

A relatively high percentage of patients visiting the EDs are being admitted at the three full service general hospitals. St. Mary's which provides a more focused range of inpatient services, as would be expected, admits a smaller percentage of its ED visits. Taken together, St. Mary's and Grand River Hospital, which together provide a full range of acute care services for the Kitchener Waterloo community, admit approximately 11% of their ED visits which is similar to medium size community general hospitals across Canada. The average admission rates for each CTAS level for Canadian hospitals are presented in the table below.

Exhibit 14: 2004/05 Average Percentage of ED Visits Admitted to Hospital by CTAS Level and Hospital Type

Triage Level	Very Small	Small	Medium	Large	Teaching	Total
1	45.0%	42.4%	53.8%	62.1%	66.1%	60.2%
2	44.0%	37.1%	36.2%	35.6%	35.1%	35.9%
3	19.8%	15.6%	16.2%	16.8%	18.9%	17.2%
4	3.4%	2.9%	3.3%	3.1%	4.6%	3.4%
5	1.2%	1.2%	1.6%	2.1%	2.5%	1.6%
Total	6.2%	6.9%	11.0%	15.0%	14.8%	12.1%

[5] Note that category Triaged, Left before completing treatment includes: Triaged, Left ED Not Seen by Dr.; Triaged, Assessed, Left w/o Treatment; Triaged, Assessed, Treatment Initiated, Left AMA.

The admission rate at Cambridge Memorial Hospital at 13.5% is significantly higher than one would anticipate for a medium sized hospital.

An extremely high percentage of patients are leaving the ED before completing treatment

An extremely high percentage of patients are leaving the ED after triage but before completing their assessment and treatment.

- At Grand River Hospital 12.6% of patients leave before completing their treatment; of these patients 94% leave before being seen by a physician.
- At Cambridge Memorial Hospital 10.4% of patients leave before completing their treatment; of these patients 39% are reported as leaving against medical advice.

Overall the percentages of patients who leave before completing their ED course of treatment at both Cambridge Memorial Hospital (10.3%) and Grand River Hospital (12.6%) are significantly higher than would be expected. The industry accepted standard for patients who leave without being seen is approximately 3%. This is a key clinical indicator of Emergency Department performance, and is generally interpreted as being indicative of care processes that are not meeting patient needs.

Patients who leave the ED before completing treatment are at high risk of adverse outcomes

Experience has demonstrated that many of these patients are at high risk of adverse outcomes in the community. It is imperative that the hospitals create a mechanism to follow up on patients who leave without being seen; especially those known to be at particularly high risk. These include, for instance, all children under the age of two, the elderly who present with fever or chest pain, the cognitively impaired, children with vomiting and diarrhea and those with head injuries. Grand River Hospital does follow some but not all of these patients.

An unusually high % or patients are leaving the CMH ED against medical advice

Of perhaps equal concern, at Cambridge Memorial Hospital, almost 40% of ED patients who left after triage but before completing their treatment have been recorded as leaving the ED against medical advice. This is an unusually high percentage and is dramatically higher than seen in other similar EDs across Canada. In 2005/06 3.6% of ED visits to the CMH ED were recorded as left against medical advice. In the first half of 2006/07 this figure had grown to 4.1% of all ED visits.

Recommendations:

It is recommended that:

(1) The Emergency Departments of Cambridge Memorial Hospital, Grand River Hospital and St. Mary's General Hospital should develop processes to identify and follow-up on high risk patients who leave the Emergency Department before completing treatment.

(2) Cambridge Memorial Hospital, Grand River Hospital and St. Mary's General Hospital should initiate corrective actions to ensure that no more than 3% of Emergency Department visits leave the Emergency Department before completing treatment.

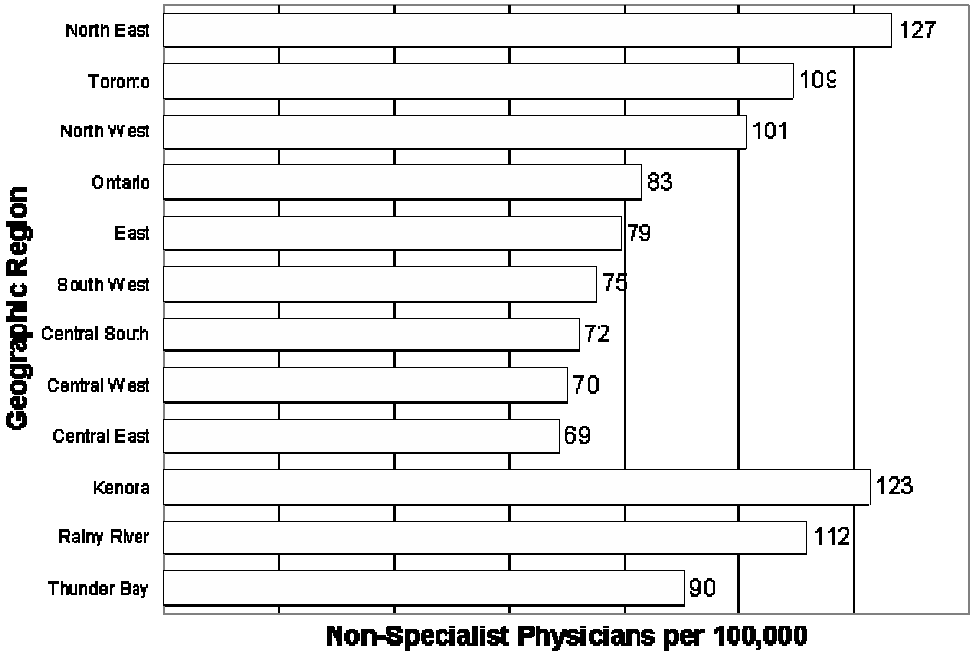
4.0 Health Care Services in Waterloo Wellington

For an Emergency Department to function effectively, it is important that other elements of the health care system in the community are also functioning well. This chapter will present the current characteristics and potential impact on the ED of selected elements of the health care system in Waterloo Wellington.

4.1 Primary Care Services

The following table compares the availability of Full Time Equivalent General Practitioner Physicians among the MOHLTC Planning regions. As can be seen, Central West has the second fewest primary care physicians of all areas in Ontario.

Exhibit 15: General Practitioner Physicians per 100,000 Population in MOHLTC Planning Area, 2004[6]



Concern was expressed by many caregivers that many of the issues faced by the Emergency Departments arise as a consequence of a shortage of primary care providers in their communities. Although a shortage of primary care providers

[6] Physicians in Ontario 2004, Ontario Physician Human Resource Data Centre.

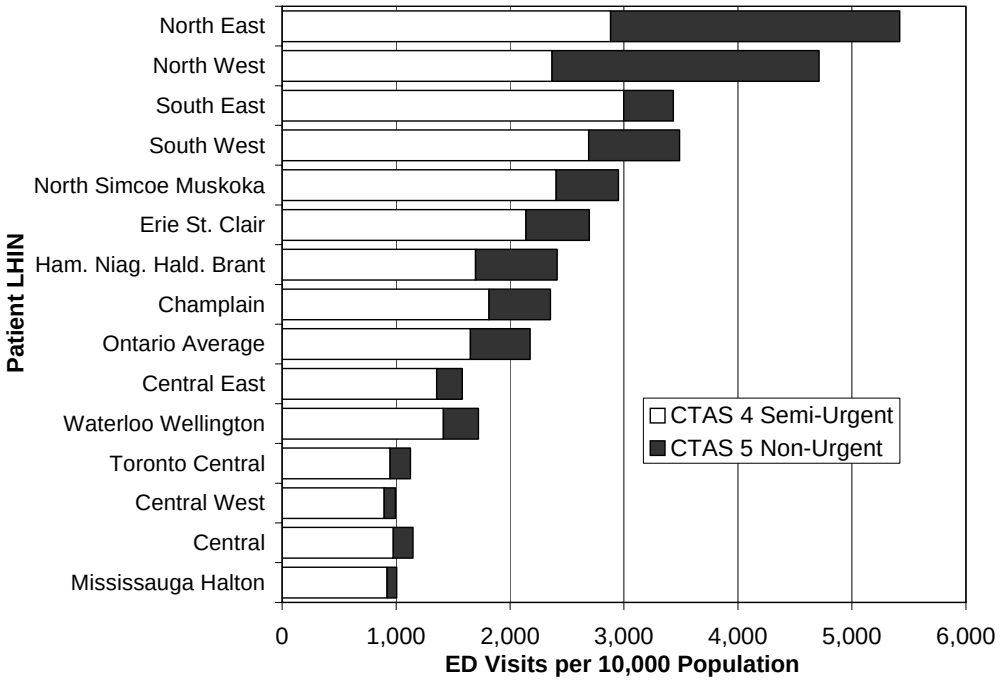
can have an impact on the ED, it is oftentimes overstated. With reference to the hospitals considered in this review, there does not seem to be a significant impact on the EDs or the hospitals from the relative shortage of primary care providers in Waterloo Wellington. Each of the stated concerns and potential impacts will be discussed in turn.

4.1.1 ED Utilization for Primary Care

The most obvious potential impact of a shortage of primary care providers is the use of the ED for primary care. This typically will manifest itself in high utilization of EDs for CTAS Level 4 and 5 visits[7].

The exhibit following presents the age/gender standardized ED utilization per population by LHIN (based on patient residence) for semi-urgent (CTAS Level 4) and non-urgent (CTAS Level 5) visits.

Exhibit 16: 2004/05 Age/Gender Standardized Non-Urgent ED (CTAS 5) and Semi-Urgent (CTAS 4) Visits per 10,000 Population by Patient LHIN



[7] All Ontario hospitals are required to track their emergency department (ED) visits and to categorize each visit according to the Canadian Triage Acuity Scale (CTAS). The five CTAS levels are: CTAS 1- Resuscitation; CTAS 2 – Emergent; CTAS 3 – Urgent' CTAS 4 – Semi-Urgent; CTAS 5 – Non-Urgent.

Enhancements in primary health care can lead to greater continuity of care for patients, and reduce both ED visits and inpatient hospitalization

As can be seen, although lower than the provincial average, the rate of non and semi urgent visits to EDs by residents of the Waterloo Wellington LHIN is higher than the Toronto and GTA LHINs but lower than all other southern Ontario LHINs. The relatively low rate of low acuity visits to EDs by residents of Waterloo Wellington suggests that the shortage of primary care providers is not having an unusual impact on the use of EDs.

However the rate of use of EDs by Waterloo Wellington residents for low acuity visits is higher than the rate for residents of Toronto and GTA LHINs. This suggests that there may be opportunities to enhance availability and access to other community health services and thereby reduce reliance on the ED for care. Enhancements in primary health care can lead to greater continuity of care for patients, and reduce both ED visits and inpatient hospitalization.

4.1.2 Orphan Patients

Almost 20% of CTAS Level 5 ED patients in Waterloo Wellington hospitals did not have a Family Physician

It is reported that the shortage of primary care providers in Waterloo Wellington has resulted in a significant number of people [although the exact numbers are difficult to confirm, in the Cambridge community it is reported to be 30,000] who have no Family Physician. People without a Family Physician who present at a hospital are often referred to as 'Orphan Patients'.

It is important to note that although these people may have no family physician in Waterloo Wellington, they may have a Family Physician in another community. This results in these individuals getting elective primary care outside of Waterloo Wellington while relying on Waterloo Wellington Emergency Departments for urgent and emergent care.

Some people without a regular Family Physician may make use of after-hours health care services which may not be affiliated with the hospital, either directly or indirectly. Such clinics provide episodic, but not continuing or comprehensive care, and have been noted by many observers to frequently refer patients to Emergency Departments for urgent or semi-urgent investigations, which ED staff often feel may not be urgent and/or necessary.

Some patients without a family physician will use the ED for primary care.

In 2006/07 over 10% of patients visiting the EDs of the Waterloo Wellington Hospitals did not have a family

physician. Almost 20% of CTAS Level 5 ED patients did not have a Family Physician.

Exhibit 17: 2006/07 YTD % of ED Patients with Family Practitioner

Triage Level	Percent of ED Patients with FP/GP			
	Grand River	St. Mary's	Cambridge	Total
1	81.7%	85.7%	81.8%	83.1%
2	87.0%	94.3%	90.4%	89.5%
3	86.3%	92.8%	90.2%	89.6%
4	84.4%	91.3%	87.2%	87.8%
5	75.9%	90.6%	83.7%	82.9%
Total	85.5%	92.2%	89.3%	88.7%

The ED needs to address not only the orphan patient's presenting problem but also the patient's entire array of related and unrelated health care problems

When these 'orphan patients' present to the Emergency Department, they often are found to have an acute problem related to or integrated with a variety of other health care problems. The absence of a primary caregiver in the community tends to drive the Emergency care provider to be more comprehensive and thorough in his or her evaluation and management, not only of the patients presenting problem, but their entire array of health care problems.

This has been shown, among other things, to increase the number and complexity of investigations that are ordered, even if they are not necessarily related to the patient's immediate problem. It may also lead to an increased rate of consultation request [owing to the lack of an individual in the community who can coordinate such requests], and increased rates of admission to hospital, in order to ensure that all the patient's medical needs are comprehensively evaluated and managed.

While this pattern of management is understandable, it does place an unnecessary burden on diagnostic services, consulting staff and inpatient resources. Many hospitals have developed methodologies to deal with this growing issue.

Rapid follow-up clinics will decrease ED orders for diagnostic tests, decrease number of consults requested by ED, reduce hospital admissions from ED, and shorten inpatient lengths of stay

The creation of a rapid follow-up clinic, in which patients can be seen on an urgent basis by appropriate consultants will significantly decrease the demand for comprehensive Emergency Department evaluation, and minimize the number of unnecessary admissions to hospital. Such a clinic may be a multi-service clinic, and provide not only rapid follow-up consultation for orphan patients but also rapid follow-up for other patients discharged from the Emergency Department in need of urgent but not emergent consultation. The medical and paediatric clinics should have a general profile, for example,

asthma, diabetes and inflammatory bowel disease. The surgical clinics could offer a range of surgical specialties: general, urology, plastics, etc. Patient types might include rapid follow-up of tendon lacerations, burns, urinary retention, renal colic, etc. There should also be psychiatry clinics for problems such as new onset depression, suicide risk and decompensation of certain stable long term conditions.

The creation of rapid follow-up clinics has been shown to decrease the number of diagnostic tests ordered from the Emergency Department, decrease the number of referrals to medical services from the Emergency Department, reduce the number of hospital admissions from the ED, shorten inpatient length of stay, and provide a venue which supports the needs of internists. The availability of such a resource in the hospital may allow medical specialists to remain on site all day during their on-call day, as it will provide a venue in which they can provide clinical services, should the demand for consultations in the Emergency Department not be sufficient to fill their day.

Recommendation:

It is recommended that:

(3) Cambridge Memorial Hospital, Grand River Hospital and St. Mary's General Hospital with support from the LHIN should create rapid follow-up clinics to be used for next day follow up for Emergency Department patients and the management of recently discharged inpatients.

4.1.3 Overcrowding

It has been repeatedly suggested the presence of patients seeking primary care services contributes significantly to Emergency Department overcrowding. As demonstrated in the literature, the presence of such patients does not contribute to Emergency Department overcrowding, which is a phenomenon that results almost exclusively as a consequence of issues related to admitted patients remaining in the ED rather than being transferred to an inpatient unit. Furthermore, it has been demonstrated that the actual cost of care for such patients is minimal, and does not adversely affect the budgetary performance of the Emergency Department.

Conversely, it is necessary to ensure that such patients are treated in appropriate physical facilities, such as a fast track area, which facilitates rapid throughput, and does not require

the incremental nursing or capital equipment necessary to provide care to patients with higher acuities. It is also possible that such patients may experience prolonged wait times, as Emergency Department care providers focus their energies on patients presenting with higher acuity. Notwithstanding concerns expressed by patients and families regarding extended waits for access to service, given their low acuity, it is not inappropriate for such patients to wait.

4.1.4 Ambulatory Care Sensitive Conditions

The Canadian Institute for Health Information (CIHI)[8] categorizes some inpatient admissions as "ambulatory care sensitive condition" admissions, meaning that if appropriate primary health care had been available and effective, the inpatient admission of the patient could have been avoided, either because their condition would not become so serious as to require hospitalization, or because their care could be managed on an ambulatory basis. These conditions are:

- Pneumonia
- Congestive Heart Failure
- Asthma
- Cellulitis
- Ulcer
- Pyleonephritis
- Diabetes
- Ruptured Appendix
- Hypertension
- Hypokalemia
- Immunizable Conditions
- Gangrene

When hospitalization is required for these conditions, the admission is urgent or emergent and starts with an Emergency Department visit.

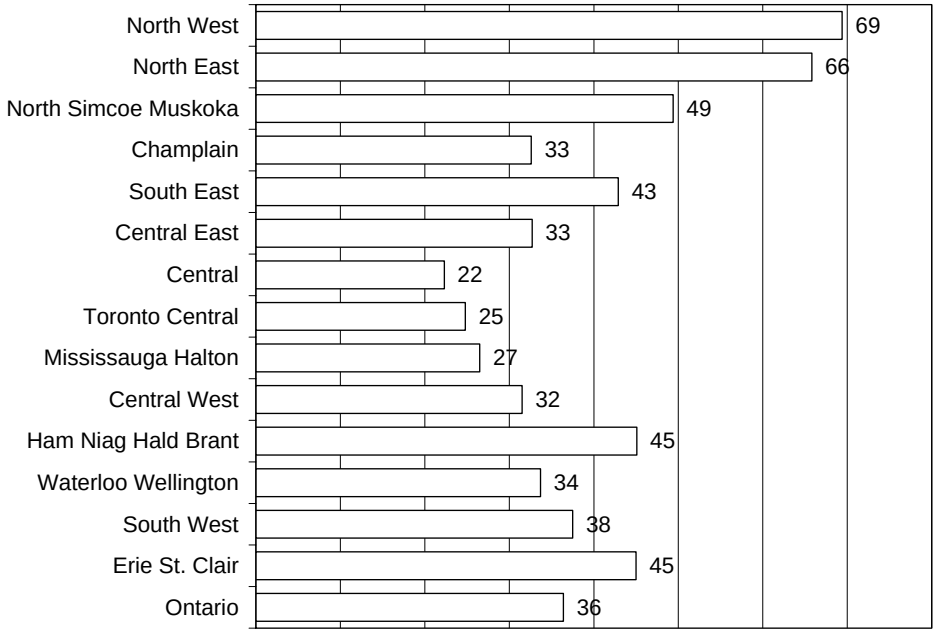
More and improved primary health care in Waterloo Wellington would improve the health status of the population

The rate of hospital admission for these ambulatory care sensitive conditions for residents of the Waterloo Wellington LHIN is similar to the other LHINs in Southern Ontario outside of Toronto and the GTA. However, the rate is much higher than for residents of the Toronto/GTA LHINs. Thus,

[8] CIHI, "Health Care in Canada", 2006.

although the situation in Waterloo Wellington is comparable to other parts of the province, there are opportunities for improvement that would benefit the population. More and improved primary health care in Waterloo Wellington likely would help to improve the health status of the population and reduce the rate of Emergency Department visits and hospitalization for these conditions.

Exhibit 18: 2004/05 "Ambulatory Care Sensitive Condition" Inpatient Discharges per 10,000 Age/Gender Standardized Population by Patient LHIN



4.1.5 Patient Transfers from Nursing Homes to Emergency Departments

Some patients are transferred from nursing homes to EDs because the nursing home physician is unwilling or to provide care at the nursing home

Frequently, transfers from nursing homes to emergency departments occur not because of the acuity of patient presentation, but because of the unwillingness or unavailability of the physician designated to provide care at the nursing home. Patients also may be transferred to an acute-care institution even though advance directives are in place owing to family pressure, the desire to have a death certificate completed, or as a means of deferring workload from the nursing home. The hospitals should work with the CCAC and the nursing homes to minimize the number of unnecessary transfers to acute care hospitals. Strategies to consider may include developing policies to ensure availability of an on site response to resident medical needs, transfers only when the desire for acute care treatment is reflected in advance directives, and transfers only to receive

services which cannot be mobilized in the long term care environment.

Similarly, nursing homes are often unwilling to accept the return of their patients from the Emergency Department either because the hour of day is inconvenient or because they perceive the level of care to be beyond their competence to manage. The hospitals should work with the CCAC and the nursing homes to ensure that the nursing homes accept patients discharged from the Emergency Department 24 hours per day, 7 days per week. The hospitals should work with the CCAC to determine and better understand the levels of care that should be available in nursing homes. The CCAC should work with the hospitals and the nursing homes to develop policies and procedures that will facilitate discharge of ED patients back to their nursing homes.

Recommendation:

It is recommended that:

(4) The Waterloo Wellington hospitals should work with the CCAC and the Nursing Homes to develop policies and procedures that minimize transfers to EDs and facilitate the prompt return of nursing home patients to their nursing homes following care in an Emergency Department.

4.1.6 Family Physician Referrals

ED patients who have seen their Family Physician prior to visiting the ED are significantly more likely to need sophisticated investigations consultation, and perhaps admission to hospital

Concern was expressed by both Emergency Department nurses and physicians that Family Physician referrals to the ED for specialist care are unnecessarily congesting the Emergency Department. However, studies that have evaluated the need for specialized services among patients evaluated by their Family Physician prior to arrival at the Emergency Department, as opposed to the general population, have indicated that, in fact, those who have seen their Family Physician are (statistically significantly) more likely to need sophisticated investigations consultation, and perhaps admission to hospital[9]. Therefore, discouraging the Family Physician referral to the Emergency Department would be an unwise decision.

[9] Patel, S and I. Dubinsky, "Outcomes of Referrals to the Emergency Department by Family Physicians", American Journal of Emergency Medicine, Vol. 20, Number 5, May 2002. pp 144-150.

Conversely, deciding whether or not such patients should see the Emergency Physician, or be referred directly to consultants, posits an operational and logistic issue. Some such patients will, in fact, be in need of urgent or emergent evaluation, resuscitation, and/or treatment. Owing to the high level of background activity in the Emergency Department, it is also essential to ensure that such patients are triaged appropriately.

While, in some cases, a consultant may be available to see such patients in a more timely matter than the Emergency Physician, commonly this is not the case. In order to ensure that such patients are evaluated in an appropriate timeframe, bearing in mind not only the degree of urgency of their illness, but also the needs of other patients presenting to the department, the following protocol is suggested:

- all patients presenting to the Emergency Department, including those referred by Family Physicians, should be triaged.
- patients should be seen according to their triage priority
- at such time as patients referred to the ED by a Family Physician for specialist care are brought into the department the consultant who was previously notified by the Family Physician should be made aware that the patient is now in the Emergency Department to be evaluated
- the patient's chart should be placed in line with charts of all other patients awaiting physician assessment
- if the Emergency Physician is able to see the patient in a more timely matter than the consultant, the Emergency Physician should evaluate the patient
- if, in the opinion of the Emergency Physician, the patient does not need urgent consultation, the Emergency Physician should be empowered to discharge the patient, and make whatever follow-up arrangements are appropriate
- if, conversely, the consultant is available to see the patient prior to the Emergency Physician, the consultant should similarly conduct the evaluation and make any decisions regarding further investigation, admission or discharge

Recommendation:

It is recommended that:

(5) Cambridge Memorial Hospital, Grand River Hospital and St. Mary's General Hospital should develop and implement policies and processes regarding the management of patients referred to the ED by Family Physicians for Specialist care.

4.2 Specialist Physician Resources

It would better serve the interests of the population to have a regional rather than hospital specific physician human resource plan

In addition to shortages of Family Physicians and the difficulties recruiting and retaining Emergency Physicians, it has been reported that there are physician shortfalls in other clinical departments in area hospitals. It would better serve the interests of the population to have a regional rather than hospital specific physician human resource plan, which minimizes duplication of services, provides preferential recruitment to communities with the greatest need, and enhanced cooperation and collaboration between and among institutions as pertains to physician resources. For example with only 4 physician in the region providing vascular surgery, 2 at Guelph General Hospital and 2 at Grand River Hospital , it would be advantageous to develop models that allow all the hospitals to access this resource through a regional call schedule in support of the EDs and consultation support to inpatients at all hospitals. Similar models could be developed for other subspecialties. By sharing call responsibility among a larger group, this would also serve to reduce the call responsibilities for individual physicians. Alternatively, consideration might be given to consolidating limited subspecialist resources at one of the area hospitals and creating regional centres of excellence. For example thoracic surgery could be consolidated at St. Mary's General Hospital, the regional centre of excellence in Respiratory Medicine.

Owing to the geographic proximity of the hospitals in the region, the potential for competition for the same physician resource is great. Rather than having individual organizations compete for the same limited resource, it would be beneficial to create a central catalogue of needs, and a triage process which identifies the centers in greatest need. This would provide a preferential recruiting system that directs, as much as possible, recruited physician resources to the centers in greatest need.

Recommendation:

It is recommended that:

(6) The Waterloo Wellington hospitals should collaboratively develop a physician human resource plan for the region.

4.3 Ambulance Services

Ambulance offload delays of up to five hours are being reported

Unlike the experience in other geographic parts of the province, it was reported that offload delays were not experienced in the Waterloo Wellington region until approximately 2 years ago. However since late fall of 2004 this has become an increasing issue. Currently, ambulance offload delays of up to five hours are being reported, with five to six vehicles at any one time [up to one half of the fleet available on days and 75% of the fleet available on nights] being effectively out of service owing to offload delays.

Grand River Hospital has had 128 delays in patient offloading consuming 150 hours of ambulance service time

This issue appears to be most significant at Grand River Hospital, with current levels of 128 delays per month consuming 150 hours of ambulance service time. The most recent available data indicates that there were an average of 95 delays per month at St. Mary's General Hospital consuming 105 hours of ambulance time, and 14 delays per month at Cambridge Hospital, with a loss of 11 hours of ambulance service time.

Delays in offloading ambulances are an important indicator of ED effectiveness. This statistic should be included in management reporting of department effectiveness. Because of its importance to the hospital's service to the community, consideration should be given to reporting ambulance offload delays (along with time from triage to assessment for all patients) to hospital boards.

It should be noted that Cambridge Memorial Hospital does use offload delay data as an Emergency Services quality indicator. The difference in performance among the hospitals is attributed to aggressive strategies adopted by Cambridge Memorial Hospital to ensure the timely offload of ambulance bound patients.

The Department of Ambulance Services has adopted strategies to try to minimize the impact of these delays. As soon as more than two crews are delayed, the supervisor is sent to the affected organization and tries to mobilize the resources

necessary to ensure that the ambulance crew is freed to return to service.

The ambulance service has also adopted strategies which allow one crew to supervise two or three ambulance bound patients, thus freeing crews to return to community service. The Department of Ambulance Services has also adopted a strategy of using ambulance attendants on light duty to assist in the care of such patients. This practice does, however, pose a significant risk/quality concern. It is as yet, for instance, unclear who is ultimately responsible for the care of a patient who remains on an ambulance stretcher under the care of ambulance attendants but within the walls of an Emergency Department. It is also unclear whether it better serves the interests of the public to triage and assess patients on ambulance stretchers and grant them priority access to Emergency Department resources when there are patients in waiting room chairs triaged to a higher level of acuity.

There is, at this time, a multidisciplinary committee, the Emergency Medical Services/Emergency Department Working Group, with representation from ED program managers staff nurses, Department of Ambulance Services supervisors, which meets quarterly and addresses this and other issues affecting the Department of Ambulance Services. There is also a Waterloo Wellington group comprised of administrators, nursing staff, ambulance personnel, a base hospital group and care providers from the region (Waterloo Wellington Emergency Services Network).

The latter committee (WWESN) has a prescribed mandate, scope, objectives and deliverables. However, as currently delineated, their accountability is described as being to the organizations that collectively comprise the continuum of emergency services in Waterloo Region and Wellington County and to the Ministry of Health and Long-Term Care emergency services branch. It is suggested that this network should also provide a regular updates to the LHIN, in order to ensure that this body is aware of its deliberations and activities

The committees noted above meet on a regular basis and provide excellent supervision as well as a vehicle for communication between and among ambulance services and front-line care providers.

The nursing manager and ambulance services should meet regularly to discuss operational and communication issues between nursing and ambulance personnel

Concern was expressed regarding the deterioration in the relationship between nursing staff and ambulance personnel, almost certainly related to the stress under which Emergency Department nurses are operating. It would be useful for the nursing manager and a representative of the ambulance service at each site to meet regularly to discuss operational and communication issues between nursing and ambulance personnel. We understand that this does happen at Cambridge Memorial Hospital.

The Waterloo Wellington Emergency Services Network operates a transfer service, which has been in place for almost 10 years. This service, which services ambulatory, stretcher bound, and wheelchair-bound patients has been supported in part by the local municipality and the hospital. It utilizes private transfer providers and completes approximately 16,000 calls per year. The portion of funding provided by local municipal councils has decreased, with the burden of the financial responsibility now lying with the hospital.

Patients should be required to bear the cost of elective ambulance transfers

Such a system contributes materially to decongesting inpatient beds, as well as facilitating discharge from the Emergency Department. However, it is a financial burden to the hospitals which have been left with responsibility for funding the service. In many other constituencies, patients and families are asked to pay for the cost of these elective or non-urgent transfers. In Waterloo the hospitals should consider changing policies so that patients are required to bear the cost of elective ambulance transfers.

The ambulance service has also engaged in a policy of site triage. As a consequence, patients are preferentially transported to the hospital where the appropriate service is likely to be found. For instance, patients with chest pain or heart failure are transferred to St. Mary's General Hospital, which is where the cardiac program is sited. This transition has not, however, been problem free. Approximately one half of all ambulance transfers now require the crew to move a greater distance than previously, with approximately 20% more time taken up in transfers. Admittedly, this time consumption may be partly affected by offload delays. Notwithstanding these issues, however, the ambulance service believes that this model of consolidation of services should continue.

Unlike other jurisdictions, the ambulance service currently transfers very few patients out of region, with only approximately 3% of ambulance service time being spent in

this pursuit. Most such transfers are for access to critical care services not available locally. There are no operational issues encountered as a result of these transfers.

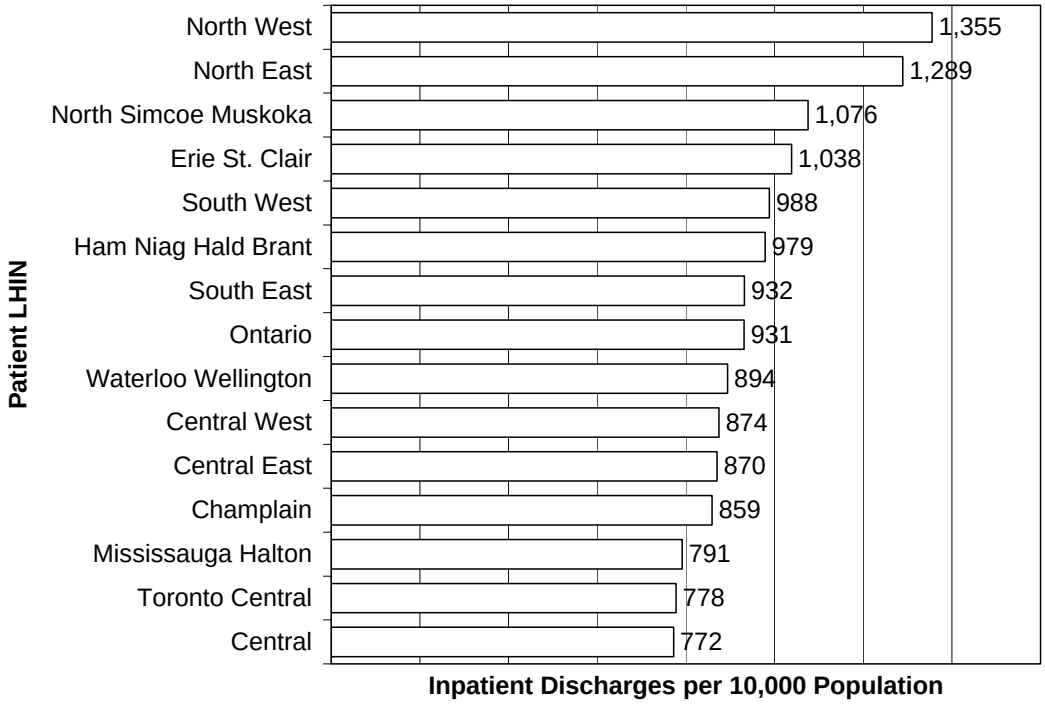
4.4 Acute Care

4.4.1 Hospitalization Rate

WW residents use hospitals less than most other Southern Ontario LHINs

The exhibit following presents the age-gender adjusted rate of hospitalization for residents of the Waterloo Wellington LHIN compared to the other Ontario LHINs.

Exhibit 19: 2004/05 Age-Gender Standardized Hospitalization Rates



As can be seen, the residents of Waterloo Wellington use hospitals less than the Ontario average and less than many other Southern Ontario LHINs. Only residents of three of the Toronto/GTA LHINs use hospitals less than residents of Waterloo Wellington.

4.4.2 MNRH Hospitalizations

The Canadian Institute for Health Information (CIHI) has identified several conditions as "May Not Require Hospitalization" (MNRH). These are conditions that are most often more appropriately cared for in settings other than acute care hospitals. The Case Mix Groups (CMGs) identified as MNRH by CIHI are presented in the table following.

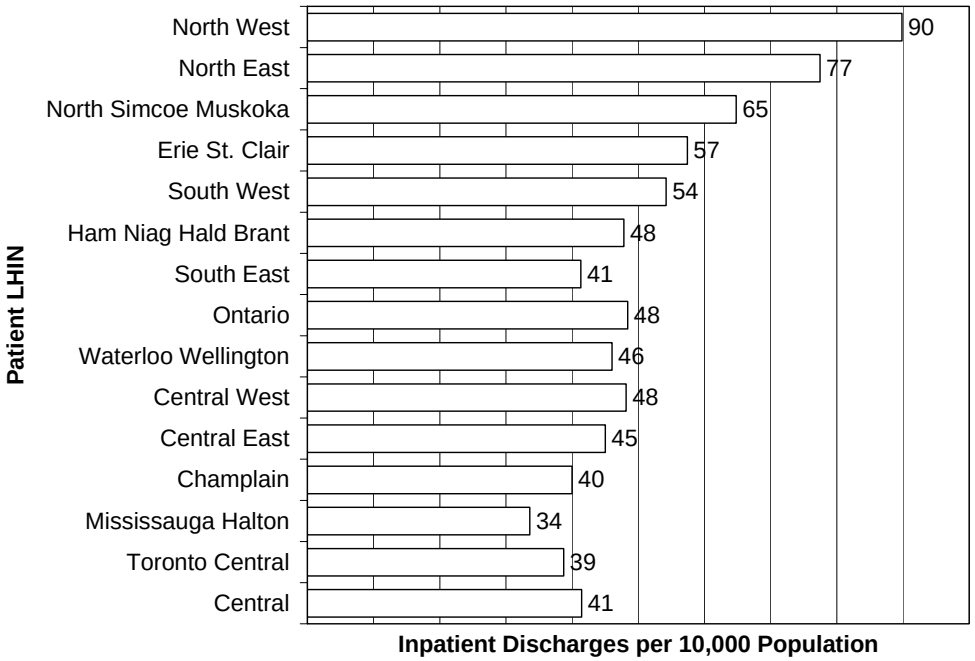
Exhibit 20: MNRH CMGs

CMG Name	CMG Name
LENS INSERTION (MNRH)	SPR/STRAINS, MINOR INJ (MNRH)
OTHER OPHTHALMIC PROC (MNRH)	OTH TRANSURETH PROC/BX(MNRH)
OTHER OPHTHALMIC DX (MNRH)	MISC URINARY TRACT PROC(MNRH)
ETHMOIDECTOMY (MNRH)	MISC UROLOG DIAGNOSES (MNRH)
DENTAL EXTRACT/RESTORE (MNRH)	HEMATURIA (MNRH)
EXT & MIDDLE EAR PROC(MNRH)	URINARY OBSTRUCTION (MNRH)
NASAL PROCEDURES (MNRH)	ADMISSION FOR DIALYSIS (MNRH)
MYRINGOTOMY (MNRH)	MISC MALE REP SYS PROC (MNRH)
TONSILL/ADENOIDECTOMY (MNRH)	CIRCUMCISION (MNRH)
SINUSITIS (MNRH)	MISC MALE REPR SYS DIAG(MNRH)
SORE THROAT (MNRH)	GYN LAPAROSCOPY (MNRH)
MISC ENT DIAGNOSES (MNRH)	TUBAL INTERRUPTION (MNRH)
CROUP (MNRH)	MISC GYN PROCEDURES (MNRH)
ATHEROSCLEROSIS (MNRH)	MISC GYN DIAGNOSES (MNRH)
ACQUIRED VALV DIS (MNRH)	FALSE LABOUR,LOS <3DAYS(MNRH)
HYPERTENSION (MNRH)	ANXIETY DISORDERS (MNRH)
CONGENITAL CARD DISORD(MNRH)	ADJUSTMENT DISORDERS(MNRH)
ANUS & STOMAL PROC (MNRH)	PERSONALITY DIS W AXIS3(MNRH)
UNILATERAL HERNIA PROC (MNRH)	PERSONALTY DIS NO AXIS3(MNRH)
SOFT TISSUE PROCEDURES(MNRH)	SEXUAL DYSFUNCT/DISORD(MNRH)
OTHER MUSCULOSKEL PROC(MNRH)	SPECIFIC DEVELOP DISORD(MNRH)
OTHER LOWER EXTREM PROC(MNRH)	MISC PSYCH DIAGNOSES (MNRH)
HAND AND WRIST PROC (MNRH)	MNRH PROC INJURY/COMPL TREAT
ARTHROSCOPY (MNRH)	PROCEDURE CANCELLED (MNRH)
BACK PAIN (MNRH)	VEIN LIGATION & STRIP (MNRH)
SIGNS/SYMPTOM/DEFORMITY(MNRH)	MNRH UNRELATED O.R. PROCEDURE
JOINT DERANGEMENTS (MNRH)	OBSOLETE PSYCHIATRIC DX(MNRH)

Reducing the rate of MNRH admissions would free up more beds for patients in need of acute care and provide for more immediate access to inpatient beds for patients being admitted from the ED

The exhibit following presents the age-gender adjusted MNRH rates for the Ontario LHINs for 2004/05. As can be seen, the rate of MNRH admissions for Waterloo Wellington residents is comparable to other Southern Ontario LHINs. However, some LHINs have achieved rates that are substantially lower than that achieved for Waterloo Wellington residents. More robust community services; more aggressive use of outpatient care in place of inpatient care and more appropriate admission decisions in the ED would reduce the rate of MNRH admissions, free up more beds for patients in need of acute care and provide for more immediate access to inpatient beds for patients being admitted from the ED.

Exhibit 21: 2004/05 Age-Gender Standardized Rates of MNRH Admissions



4.4.3 Clinical Decision Units

Hospitals have a significant opportunity to decrease the utilization of inpatient beds by Emergency Department patients through the use of Clinical Decision Units (CDUs). CDUs are recommended in the "Improving Access to Emergency Care" document. CDU's have been especially useful in reducing the number of MNRH admissions. They have also been shown to help reduce the number of short stay admissions. These units should be physically distinct from, but adjacent to the Emergency Department. Medical direction for the care of patients in this unit should be provided by Emergency Department Physicians. Nursing Care should be provided by ED nursing staff but the introduction of a CDU will require additional ED nurse staffing commensurate with the incremental workload presented by CDU patients. Nurses should be specifically scheduled to provide service in this area. In addition, all care provided in this area should be done under the aegis of an array of medical directives and care maps. The length of stay in the unit must not exceed 24 hours.

Examples of the kinds of patient conditions for which a CDU may be used are: chest pain of unknown origin, mild or moderate exacerbations of congestive heart failure, arrhythmias, asthma, exacerbations of COPD, head injuries, abdominal pain of unknown etiology, non-life threatening

overdoses and children with conditions such as croup, bronchiolitis and gastroenteritis.

Recommendation:

It is recommended that:

(7) The Cambridge Memorial Hospital, Grand River Hospital and St. Mary's General Hospital Emergency Departments should establish Clinical Decision Units

4.4.4 Hospital Occupancy

The occupancy of medical, surgical and ICU beds in the larger Waterloo Wellington hospitals is below the average occupancy for other large Ontario hospitals

Most admissions (over 60%) through a hospital's Emergency Department are to a medical bed. With the exception of the specialized programs at each of the 3 sites under review almost 100% of medical, paediatric, and psychiatric admissions will be from the hospital's Emergency Department.

The number of surgical admissions through the ED is also predictable. Generally 20% of admissions through the ED are to surgical beds.

The number of hospital admissions through the ED is predictable and thus hospitals should be able to predict the number of beds that will necessary to provide for these Emergency Department admissions. An additional 10 to 15% of the expected number of admissions should also be available to accommodate peaks in Emergency Department activity and guarantee timely access to inpatient beds for medical patients at all times.

The exhibit below presents the average occupancy of each service in Waterloo Wellington hospitals[10]. As can be seen, The occupancy of medical, surgical and ICU beds in the larger Waterloo Wellington hospitals is below the average occupancy for other large Ontario hospitals. In most instances, the hospitals should have sufficient capacity to accommodate, without delay, patients needing to be admitted through ED.

- The average occupancy for medical beds in large Ontario hospitals is 93.5%. The average occupancy of medical

[10] As reported on the MOHLTC FIM website for 2005/06 based on hospital reporting via the 'Daily Census Summary'.

beds in all Waterloo Wellington hospitals is lower than the average for other large Ontario hospitals[11].

- The average occupancy for surgical beds in large Ontario hospitals is 83.6%. Of the Waterloo Wellington hospitals, only Grand River Hospital is above the average

Exhibit 22: 2005/06 Acute Care Beds (Average) and Occupancy as Reported by Hospitals to MOHLTC via Daily Census Summary[12]

WW LHIN Large Acute Care Hospital		Medical	Surgical	Comb. Med. Surg.	ICU	Obstet.	Paeds.	Psych.	Total
Grand River KW	Beds	99	76	6	13	41	18	52	304
Guelph General		72	54	0	22	22	10	0	180
Cambridge Memorial *		55	37	0	12	15	12	11	142
St. Mary's General		61	18	45	22	0	0	0	144
4 Hospital Total		287	185	51	69	78	40	63	770
Grand River KW	Occupancy	88.4%	87.6%	80.4%	81.4%	62.4%	51.5%	95.2%	85.7%
Guelph General		90.0%	79.1%	0.0%	82.2%	48.9%	49.6%	0.0%	81.2%
Cambridge Memorial *		87.5%	76.9%	0.0%	96.8%	64.9%	68.9%	83.2%	81.2%
St. Mary's General		81.1%	78.0%	84.6%	68.6%	0.0%	0.0%	0.0%	81.0%
4 Hospital Total		87.1%	82.0%	84.1%	80.2%	59.1%	56.2%	93.1%	82.9%
Ont. Large Hosp. Avg.		93.5%	83.6%	87.0%	77.5%	69.6%	54.7%	85.2%	88.4%

The Grand River and St. Mary's General Hospitals have developed protocols to be implemented when all inpatient beds are full, and the number of admitted patients in the Emergency Department exceeds a specific number. At such times, physicians are contacted and requested to identify patients who might be discharged to make room for emergent admissions. Such strategies are reactive and could be made more efficient. They require the sudden mobilization of multiple resources when beds become full. Over time these strategies lose their effectiveness as physicians become increasingly unresponsive to calls requesting the identification of inpatients who may be fit for discharge.

[11] There are beds 'designated' for short stay elective procedures (e.g. cardiac catheterization') that are not scheduled for use on weekends. This reduces the occupancy rate of the hospital since these beds are purposefully empty for 2 days per week.

[12] *Cambridge Memorial Hospital bed numbers based on internal data due to error in data reported to MOHLTC

Hospitals should develop proactive strategies to ensure sufficient open beds to accommodate needed admissions from the Emergency Department

We suggest that it is necessary for hospitals to develop proactive strategies in order to circumvent these difficulties. Proactive strategies can, and should, include ensuring an appropriate number of beds are allocated to the medical service to support the Emergency Department taking into account the admission rate and expected lengths of stay of medical patients admitted through the ED. Such strategies will need to ensure optimization of length of stay and access to and timely mobilization of the resources necessary to support timely discharges, such as the use of social workers, discharge coordinators, and communication with community care access coordinators.

Additionally, it is essential that the department of surgery have a sufficiently large number of "protected beds" to guarantee the viability of the surgical program and the needs for both elective and emergent surgery. At-times when the surgical department is over census, surgeons should be given the option of either discharging patients, or in the alternative, elective surgery must be cancelled. This caveat should, however, only apply at times when the surgical beds are occupied by surgical, as opposed to medical patients.

It is also essential, in support of this philosophy, for all institutions to clearly define which patients will be identified as "surgical" and which will be identified as "medical" and develop a bed allocation which reflects these decisions. This will also provide clarity to Emergency Department care providers as to which service should be notified for consultation and potential admission as it pertains to certain clinical conditions that might be referred to one or the other specialty [e.g. pancreatitis, the confused elderly, children with abdominal pain]. It will also facilitate the consultation process, as it will be explicit which service is to take responsibility for patients with specific clinical conditions. Unless there has been an error in diagnosis (e.g. confusing a broken limb for a stroke) there must be no “bounce backs” to the Emergency Department. If a consultant does not feel that the clinical problem is in his or her domain, then he or she must accept responsibility for engaging another service; the consultant should not give the patient back to the ED physician to find the more appropriate service. The hospitals should establish a “no bounce back” for referrals to consultants.

Timely discharge from inpatient beds is critical to creating capacity to accommodate ED admissions

Critical to successful strategies for accommodating emergent admissions to medical and surgical beds are strategies to facilitate timely discharge from inpatient beds. These strategies should, include:

- ensuring that recently discharged patients may return to the hospital for investigations on an outpatient basis in an appropriately timely manner, rather than being kept in hospital in order to guarantee access to such investigations
- follow-up clinics which are available to reassess patients who were discharged in order to ensure that there has been no deterioration in their condition in the one to three days following discharge
- practices that ensure that colleagues providing coverage on weekends and holidays are empowered and encouraged to discharge patients on behalf of their colleagues. One model to support this activity is the "discharge unless" model. This requires that the most responsible physician write an order on the patient's chart prior to weekends or statutory holidays indicating that the patient is to be discharged unless certain clinical conditions [such as a recurrence of fever or chest plain] occur. This obviates the responsibility for the discharge decision from the covering physician, and allows the nurses to act on the MRP order.
- daily bed management rounds attended by nursing and medical leaders to develop plans for addressing the following days bed requirements and addressing any unresolved current bed requirements. St. Mary's General Hospital and Cambridge Memorial Hospital have such a program.

4.4.5 Average Length of Stay

There is an opportunity for GRH to reduce lengths of stay and either reduce costs or increase the number of patients that it admits for treatment

The average length of stay of patients admitted to Waterloo Wellington hospitals was analyzed by comparing the average length stay[13] of their patients to the CIHI Expected Length of Stay (ELOS) for all Canadian hospitals[14] for 2004/05. The following charts present this comparison for Medicine, Surgery and Psychiatry patients for each of the hospitals. It is important to note that Ontario lengths of stay tend to be shorter than national lengths of stay, so the CIHI ELOS on its own is not a good standard for LOS performance for Ontario

[13] Including only Typical Cases and excluding all ALC patient days.

[14] ELOS is actually the average performance of all Canadian hospitals; not a standard for high performing hospitals.

hospitals (i.e. virtually every Ontario hospital has a shorter LOS than the CIHI ELOS). It is preferable for Ontario hospitals to target to be well below the CIHI ELOS. Large community hospitals and teaching hospitals normally have LOS performance significantly superior to the overall Ontario LOS performance (which is calculated including small and rural hospitals).

As can be seen, Cambridge Memorial has very good length of stay performance suggesting effective utilization management practices. St. Mary's length of stay performance is reasonable; whereas, Grand River has relatively poor length of stay performance. There appear to be opportunities (in 2005/06) at Grand River Hospital to reduce lengths of stay and thereby reduce occupancy. This would allow GRH to either reduce costs or increase its volume of admitted patients. The most significant opportunities relate to medicine and mental health patients

Exhibit 23: Medicine – 2005/06 ALOS Performance for Typical Cases – Actual LOS as % of CIHI ELOS

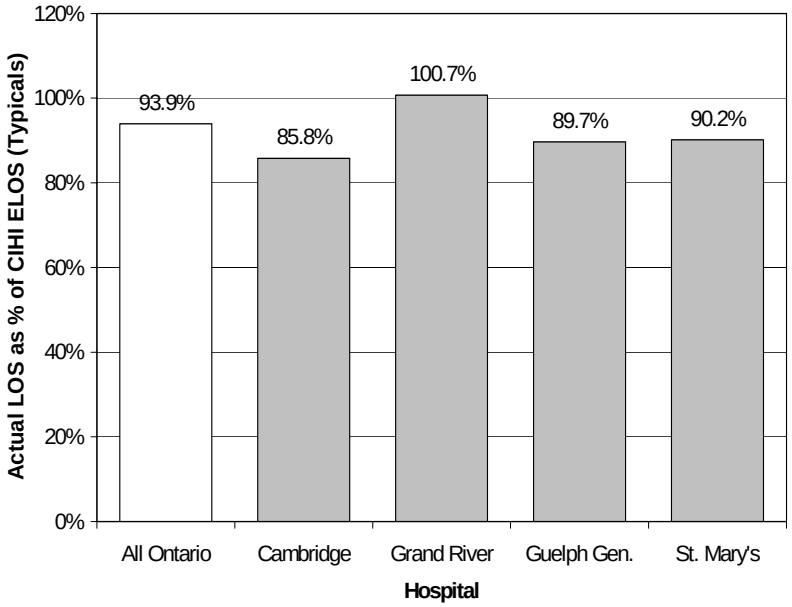


Exhibit 24: Surgery – 2005/06 ALOS Performance for Typical Cases – Actual LOS as % of CIHI ELOS

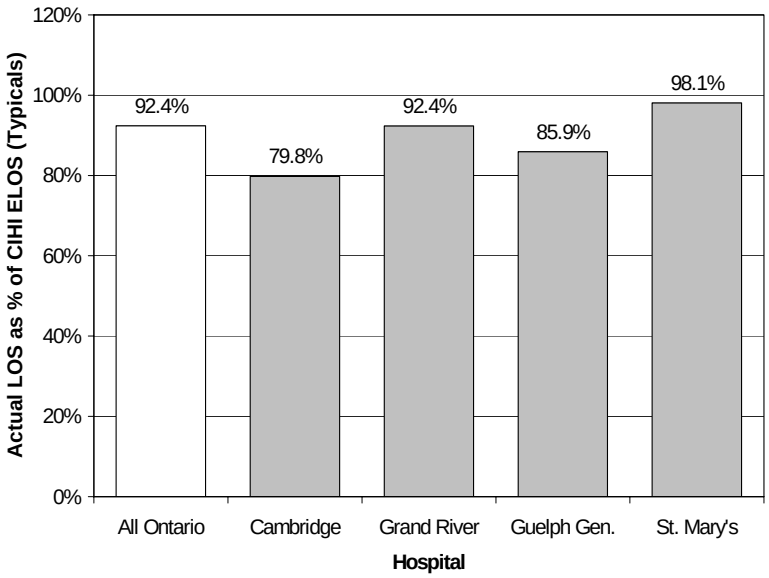
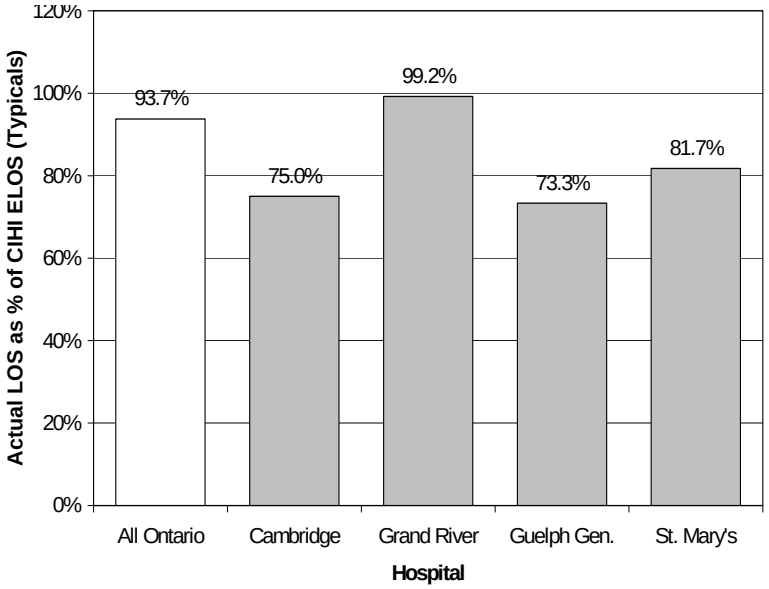


Exhibit 25: Mental Health[15] – 2005/06 ALOS Performance for Typical Cases – Actual LOS as % of CIHI ELOS



[15] Although Guelph General Hospital does not have psychiatric beds, it does admit patients to medical and surgical beds for treatment who have a concomitant mental health problem that after completion of the hospitalization was deemed to be responsible for the most hospital resources used by the patients and thus was deemed to be the most responsible reason for admission.

Recommendation:

It is recommended that:

(8) Grand River Hospital should develop policies, processes and practices that will reduce average lengths of stay of inpatients.

4.4.6 Discharge Disposition of Acute Care Patients

The discharge disposition of all inpatients is shown in the exhibit following.

Exhibit 26: Discharge Disposition – All Inpatients

Inst. To Type Group	Cambridge	Grand River - KW	Guelph General	St Mary's	Grand Total
Home	8,161	17,493	8,946	4,166	38,766
Home Care	1,407	938	1,145	1,004	4,494
Rehab	8	1,058	625	361	2,052
LTC	432	478	433	406	1,749
Acute IP	356	400	474	515	1,745
Died	293	456	279	322	1,350
CCC	416	322	57	73	868
Psych. Hosp.	57	77	147		281
Other Fac.	53	19	8	5	85
Amb. Care	4	11	24	3	42
Grand Total	11,187	21,252	12,138	6,855	51,432
% to Home Care	12.6%	4.4%	9.4%	14.6%	8.7%
% to Rehab	0.1%	5.0%	5.1%	5.3%	4.0%
% to LTC	3.9%	2.2%	3.6%	5.9%	3.4%
% to CCC	3.7%	1.5%	0.5%	1.1%	1.7%
% to LTC/CCC	7.6%	3.8%	4.0%	7.0%	5.1%
% Home (no suppt.)	73.0%	82.3%	73.7%	60.8%	75.4%
% Psych. Hosp.	0.5%	0.4%	1.2%	0.0%	0.5%

Most patients are discharged to their home with no formal support. However, there are differences in discharge disposition among the hospitals:

- Grand River Hospital discharges far fewer patients to home with home care support. Only 4.7% of GRH discharges are reported to receive home care support compared to 14.6% of discharges from St. Mary's General Hospital and 12% of discharges from Cambridge Memorial Hospital.
- Cambridge Memorial Hospital discharges far fewer patients to inpatient rehabilitation. Only 0.1% of CMH discharges are to inpatient rehabilitation compared to over 5% of discharges from Grand River Hospital and St. Mary's General Hospital.

- However, Cambridge Memorial Hospital discharges a higher percentage of its patients to Complex Continuing Care. CMH discharges 3.7% of its patients to CCC compared to only 1.5% of GRH patients and 1.1% of St. Mary's patients.
- Grand River Hospital discharges significantly fewer patients to Long-Term Care Homes. GRH discharges only 3.8% of its patients to a long term care home compared to 7.6% of CMH discharges and 7.0% of St. Mary's discharges.

4.4.7 Alternate Level of Care Patients

In 2005/06 there were relatively few ALC patient days in Waterloo Wellington hospitals

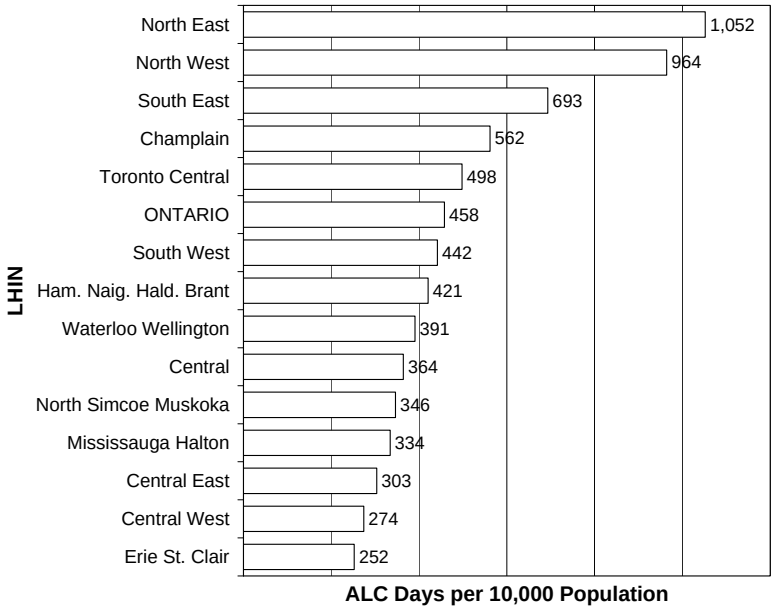
It is also informative to review the current percentage of inpatient beds occupied by patients designated as Alternative Level of Care (ALC). In 2005/06 there were relatively few ALC patient days in Waterloo Wellington hospitals, compared to the rest of the province. Overall, there were only 6.3% of patient days were ALC days compared to over 10% for other larger hospitals in Ontario.

Exhibit 27: 2005/06 ALC Days as % of Total Days by Hospital

Hospital	Admission Route		
	Not Via ED	Via ED	Total
Cambridge	2.8%	5.9%	4.7%
Grand River - KW	1.6%	7.0%	4.4%
Guelph General	7.7%	13.7%	11.3%
St Mary's	2.6%	7.8%	5.9%
Total	3.2%	8.5%	6.3%

Residents of Waterloo Wellington used relatively few ALC days wherever they were hospitalized. As can be seen in the figure following, residents of Waterloo Wellington used fewer ALC days than the average for the province.

Exhibit 28: Age-Gender Standardized ALC Days per Population



In 2006/07 there has been an 92% increase in the average daily census of ALC patients

However, it has been reported that the number of ALC patients and days has been increasing dramatically in 2006/07. The following table presents ALC days and Average Daily Census of ALC patients for 2005/06 and by month for YTD2006/07. As can be seen there has been a 92% increase in the average daily census of ALC patients in Waterloo Region hospitals.

Exhibit 29: Average Daily Census of ALC Patients in Waterloo Region Hospitals 2006/07

Time Period	Grand River	St. Mary's	Cambridge	Total
2005/06 ALC Days	4,589	2,542	2,140	9,271
2005/2006 Avg.	12.6	7.0	5.9	25.4
April, 2006	16.6	9.1	12.3	37.9
May, 2006	25.6	11.5	12.5	49.6
June, 2006	33.6	9.2	12.9	55.8
July, 2006	26.9	9.5	16.1	52.5
August, 2006	23.2	13.3	18.5	55.0
September, 2006	26.4	7.3	20.3	54.0
6 Mo. Avg.	23.4	10.0	15.4	48.9
% Chg. From 05/06	**86%**	**44%**	**163%**	**92%**

This increasing number of ALC patients and patient days suggests that there is some urgency in addressing what may become a significant problem for Waterloo Region hospitals.

The following table presents the Discharge Disposition and the number and percentage of ALC days used by patients waiting for each discharge destination.

As can be seen, the majority of patients are waiting for either a long-term care home or Complex Continuing Care. The majority of these patients are initially admitted to the hospital through the ED.

Exhibit 30: 2005/06 ALC Days by Discharge Disposition for All Inpatients (Excluding Birthing/Neonates)

Discharge Destination	Cambridge	Grand River	St Mary's	Grand Total
LTC	1,626	2,017	1,796	5,439
CCC	242	796	94	1,132
Rehab	0	347	252	599
Died	66	329	194	589
Home	42	406	43	491
Home Care	122	221	124	467
Psych. Hosp.	4	422		426
Acute IP	18	51	39	108
Other Fac.	20	0	0	20
Amb. Care	0	0	0	0
Total	2,140	4,589	2,542	9,271
LTC	76%	44%	71%	59%
CCC	11%	17%	4%	12%
Rehab	0%	8%	10%	6%
Died	3%	7%	8%	6%
Home	2%	9%	2%	5%
Home Care	6%	5%	5%	5%
Psych. Hosp.	0%	9%	0%	5%
Acute IP	1%	1%	2%	1%
Other Fac.	1%	0%	0%	0%
Amb. Care	0%	0%	0%	0%
Total	100%	100%	100%	100%

The following best practices currently being employed in other jurisdictions may be helpful in addressing the growing ALC problem in Waterloo Wellington.

- The Waterloo Wellington hospitals should develop a process for the early identification of Emergency Department patients at risk of requiring post acute care which could lead to delayed discharge from acute care. This tool should be applied not only on admission, but at regular intervals during acute-care stays.
- All Waterloo Wellington hospitals should have a geriatric consultation team available to provide multidisciplinary assessments to both Emergency Department and inpatients.

- The CCAC should increase its efforts to admit patients to home care, convalescent and long-term care placements directly from hospital Emergency Departments.
- The LHIN and the CCAC should consider establishing a program of convalescent care conducted in long-term-care homes.
- The LHIN and the CCAC should establish a program of augmented home care as a substitute for placement in long term care homes.
- The CCAC should evaluate all patients awaiting long-term care placement to identify any opportunities to transfer them to their home with augmented home care
- The CCAC should develop and circulate a more clear definition of the rules and standards of care for each level of care, particularly differentiating the roles and criteria for admission to long-term-care homes, complex continuing care and rehabilitation
- The CCAC should develop a single, integrated assessment tool and process to facilitate access to home care and care in supportive housing, long-term-care homes, complex continuing care and rehabilitation.
- The CCAC should ensure that all long-term care facilities have the capacity to admit residents seven days a week

Recommendations:

It is recommended that:

(9) The LHIN should work to ensure adequate capacity in a range of long term care treatment settings appropriate to the needs of the population that will include home care, supportive housing, nursing homes and complex continuing care.

(10) The CCAC should develop policies and procedures to ensure and facilitate access to long term care treatment settings appropriate to the needs of potential residents.

4.5 Post Acute Care

4.5.1 Non-Acute Hospital Care

The table following presents the capacity and occupancy of non-acute care hospital services in Waterloo Wellington. As

can be seen, there appears to be unused capacity in these services.

Exhibit 31: Non-Acute Beds and Occupancy, March 2006[16]

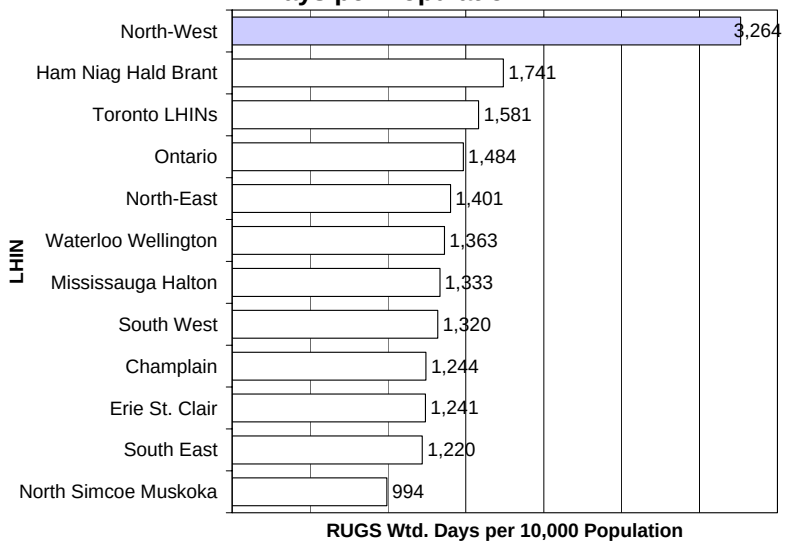
Hospital	Type	Beds	Occup.
Grand River - Freeport	Chronic	139	88.5%
St. Joseph's Guelph	Chronic	62	100.0%
Cambridge	Chronic	47	73.8%
Groves Memorial	Chronic	18	66.7%
NWHC Palmerston	Chronic	5	0.0%
NWHC Mount Forest	Chronic	4	0.0%
Grand River - Freeport	General Rehab	32	81.3%
St. Joseph's Guelph	General Rehab	15	72.2%
St. Mary's	General Rehab	15	66.7%
Grand River - KW	General Rehab	14	81.8%
Guelph General	General Rehab	12	83.3%

4.5.2 Complex Continuing Care

Complex Continuing Care is an increasingly important discharge destination for acute care patients. Waterloo Wellington is close to the median for all LHINs in the province, with 1,363 RUGS weighted patient days per population. Taken together with the low occupancy of CCC beds in Waterloo Wellington, this would suggest that there is little difficulty in accessing a CCC bed after completion of an episode of care in an acute care hospital. However, in 2005/06 there were a significant percentage of ALC patient days used by patients waiting for access to a CCC bed.

[16] CMH reports that it currently budgets for 38 CCC beds; not 47.

Exhibit 32: Complex Continuing Care Weighted Days per Population



4.5.3 Long-Term Care

Over 3% of discharges from acute care go to a long-term care home

Long-Term Care Homes are one of the most important institutional destinations for discharges from acute care hospitals. Over 3% of discharges from acute care go to a long-term care home. The following table presents the availability of LTC Home beds across the province.

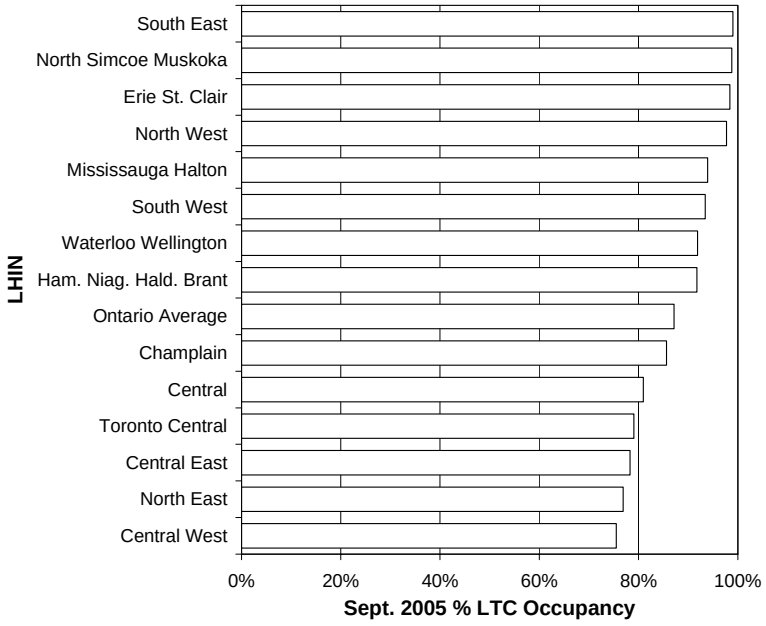
Exhibit 33: LTC Beds per Population 75+

LHIN	Long Term Care Beds (September, 2005)						Pop'n 75 +	Beds per 1,000 Pop'n 75 +	% For Profit	% Municip.
	Municipal	Charitable	NH - For Profit	NH - Not For Profit	Eldcap	Total				
Erie St. Clair	1,107	235	2,773	110	0	4,225	42,598	99.2	66%	26%
South West	1,889	806	3,642	402	0	6,739	65,320	103.2	54%	28%
Waterloo Wellington	439	604	2,277	342	0	3,662	38,809	94.4	62%	12%
Hamilton Niagara HB	1,994	1,360	5,466	1,447	0	10,267	100,479	102.2	53%	19%
Central West	994	0	2,015	304	0	3,313	28,296	117.1	61%	30%
Mississauga Halton	856	0	2,684	710	0	4,250	45,104	94.2	63%	20%
Toronto Central	1,043	1,672	1,907	1,510	0	6,132	74,807	82.0	31%	17%
Central	876	997	3,578	1,634	0	7,085	80,281	88.3	51%	12%
Central East	1,953	296	6,030	1,177	0	9,456	90,822	104.1	64%	21%
South East	1,368	243	1,927	167	0	3,705	36,146	102.5	52%	37%
Champlain	1,335	1,453	3,484	1,116	0	7,388	69,801	105.8	47%	18%
North Simcoe Muskoka	539	155	1,477	359	0	2,530	27,072	93.5	58%	21%
North East	1,415	139	1,966	1,047	96	4,663	38,221	122.0	42%	30%
North West	**808**	**0**	**490**	**266**	**118**	**1,682**	**15,183**	**110.8**	**29%**	**48%**
Total	16,616	7,960	39,716	10,591	214	75,097	752,939	99.7	53%	22%

As can be seen, Waterloo Wellington has 94.4 LTC home beds per 1000 population over 75 which is approximately 5% less than the average for the province.

Occupancy of long-term care beds provides an indication of the demand and/or need for LTC. It is, however, important to note that occupancy is a function of capacity, need and demand: occupancy may be low if capacity exceeds demand; or occupancy may be high if demand (as opposed to need) is increased by reducing the threshold for admission to a long-term care bed as a result of excess capacity. The following table compares LTC home occupancy among LHINs.

Exhibit 34: LTC Bed Occupancy Sept. 2005



A measure of the capacity of long-term care to meet the needs of the population is the ratio of those waiting in the community for access to a LTC Home to the total available beds. In the Waterloo Wellington region in September 2005, 705 people living in the community were on the waitlist for placement in a Long Term Care Home. This represents 19% of the total available capacity of long term care home beds. The exhibit following compares this ratio to other LHINs in the province. As can be seen, this ratio is higher than the provincial average and higher than many other Southern Ontario LHINs. This may be an indication of an emerging shortage of beds, a desire to wait for a particular facility and/or a problem with the processes for admitting people from the community into a long-term care home bed.

Exhibit 35: Ratio of LTC Community Wait List to Total LTC Beds

LHIN	Sept 2005 Community Wait List	Total Beds	Wait List as % of Total Beds
Erie St. Clair	636	4,225	15.1%
South West	1,294	6,739	19.2%
Waterloo Wellington	705	3,662	19.3%
Hamilton Niagara HB	1,393	10,267	13.6%
Central West	122	3,313	3.7%
Mississauga Halton	357	4,250	8.4%
Toronto Central	1,202	6,132	19.6%
Central	970	7,085	13.7%
Central East	1,591	9,456	16.8%
South East	1,100	3,705	29.7%
Champlain	1,459	7,388	19.7%
North Simcoe Muskoka	907	2,530	35.8%
North East	836	4,663	17.9%
North West	**513**	**1,682**	**30.5%**
Total	13,085	75,097	17.4%

Concern was consistently expressed regarding the lack of a sufficiently large pool of post acute care resources. It was stated that this deficiency interfered with the efficient flow of patients out of acute care; resulting in emergency department backlogs and extended waits for access to acute care services.

There are imbalances in the supply and use of long term care beds in Waterloo Wellington

The CCAC of Waterloo Region reports that currently (November 2006) there are 500 people in Waterloo Region on a waiting list for long-term care beds, with 84 of those patients waiting in the three Waterloo hospitals. Some individuals suggested that this waiting list indicates a need for more long-term care beds. Others suggest that people have been admitted to nursing homes that do not require this level of care. It was also suggested that there is a relative oversupply of private and semiprivate rooms in nursing homes and a concomitant shortage of ward accommodation, which has resulted in lower income patients experiencing extended waits in acute care beds and in the community for a standard accommodation in a nursing home.

CCAC case managers have identified that approximately one third of those on the waiting list for nursing homes do not, in fact, require this level of care but do need augmented home support. Many high functioning patients are admitted to nursing homes if they can't manage with 10 hours of home support a week. There is, apparently, a staffing shortage of homecare workers in Cambridge, and this issue is magnified by provincial policies which limit the number of hours of service that can be provided for a given client. Under special

circumstances, up to 15 hours a week can be utilized, such as for those patients who require a two-person transfer.

Supportive Housing may be a more appropriate service arrangement for long term care for many people

Several individuals identified the need for additional options for long-term care such as supportive housing. A proposal has been forwarded to the Ministry of Health and Long-Term Care, and is it seen as a useful model similar to a clustering of care model used in other jurisdictions.

The following table presents the extent of homemaking, personal support, and attendant service provided to elderly who are living in supportive housing services, and who require services available on a 24-hour basis.

Exhibit 36: Assisted Living Services in Supportive Housing by LHIN Funded by MOHLTC in the Fiscal Year 2006/2007

LHIN Name	Projected # of Units of Service to be Provided	Projected # of Seniors to be Served	Projected Fiscal Funding	2006 Pop'n 75 +	Seniors Served per 1,000 Pop'n 75+
Erie St. Clair LHIN	25,712	43	$778,530	43,485	0.99
South West LHIN	77,863	139	$1,980,208	66,750	2.08
Waterloo Wellington LHIN	0	0	$0	40,135	0.00
Hamilton Niagara HB LHIN	115,886	575	$3,360,477	102,913	5.59
Central West LHIN	120,661	1,145	$3,123,929	29,694	38.56
Mississauga Halton LHIN	257,775	804	$7,908,037	47,476	16.93
Toronto Central LHIN	791,815	2,724	$17,907,052	76,488	35.61
Central LHIN	228,734	985	$6,603,342	83,972	11.73
Central East LHIN	271,587	999	$6,654,609	93,930	10.64
South East LHIN	0	0	$0	36,852	0.00
Champlain LHIN	32,346	54	$584,345	71,641	0.75
North Simcoe Muskoka LHIN	65,590	248	$1,598,967	28,195	8.80
North East LHIN	116,736	891	$3,539,696	39,251	22.70
North West LHIN	63,196	324	$1,899,415	15,376	21.07
Provincial Total	**2,167,901**	**8,931**	**$55,938,607**	**776,158**	**11.51**

Only the Waterloo Wellington LHIN and the Southeast LHIN are projected to have no Assisted Living Services and Supportive Housing funded the by the Ministry of health for the fiscal year 2006/07. Eventually, approximately 9,000 seniors are scheduled to receive such services across the province. Apparently, none of these services are or will be delivered in Waterloo Wellington. The data underlying this conclusion may be skewed because the services have been assigned to LHINs based on the address of the organizations providing assisted-living services, rather than the geographic area in which services are being provided. However, it would appear that there is a significant opportunity for enhanced funding for assisted-living in the Waterloo Wellington LHIN.

The emerging shortage of long term care services will require that the LHIN use innovative approaches to quickly provide additional long term care capacity

The emerging shortage of long term care services will require that the LHIN use innovative approaches to quickly provide additional long term care capacity.

In expanding the capacity for long-term care in Waterloo Wellington, the following principles are recommended to the MOHLTC and/or the LHIN. The expansion of long term care capacity in Waterloo Wellington should:

- Maximize independence of clients
- Provide for maximizing social interaction for clients
- Exhibit a preference for long-term care in the client's home community.
- Exhibit a preference for in-home care over congregate housing.
- Exhibit a preference for supportive housing over nursing home care.
- Provide for psycho-geriatric care in all treatment settings.

Augmented home care and supportive housing can be implemented quickly to provide additional capacity for long term care.

Among other strategies undertaken in an effort to address the shortfall, a supportive housing for seniors proposal has been forwarded to the Ministry of Health seeking to establish a service for up to 30 clients residing in the Waterloo region on the Sunnyside Home campus. At the time of this proposal [December 20005], there were 150 affordable apartments on the property of Sunnyside housing frail seniors. Application has been made to the province for a 28 unit purpose built supportive housing project to be constructed on the campus under the Strong Starts-Canada-Ontario Affordable Housing Program. As of this writing, the proposed budget has been revised, and capital dollars have, apparently, been approved.

Recommendation:

It is recommended that:

(11) The Waterloo Wellington LHIN should provide for the development of supportive housing services with the financial support of the Ministry of Health and Long Term Care.

5.0 Medical Education

The DeGroote School of Medicine and the Waterloo hospitals may wish to defer initiating clinical educational in the Waterloo hospital Emergency Departments

McMaster University Michael G. DeGroote School of Medicine has announced its plans to develop a 3-site network of medical school campuses in Hamilton, Niagara and Waterloo Wellington. In its vision for this undertaking, collaboration in teaching, research and medical care will occur on all three campuses, with the Hamilton campus providing a centralized tertiary teaching hospital-based experience. Waterloo Wellington region will be a "distributed" campus, and feature community-based educational opportunities. The stated goal of this undertaking is to facilitate the recruitment, development and retention of educationally minded clinicians to the Waterloo Wellington area, use technology supports to assist in educational programming, and have standardized curricula and evaluative processes in all three communities.

As currently conceived, 12 months of the preclinical educational years will be spent outside of Hamilton. It is planned that the clinical clerkship [final year medical school], experience in Waterloo Wellington region will provide core educational experiences in one or two disciplines at each large hospital.

The Waterloo Wellington campus is scheduled to have 15 students per year starting in September 2007 with the first group becoming clinical clerks and starting their in-hospital clerkship experience in December of 2008 and graduating in June 2010. In addition, the campus will become a focus of postgraduate training in July of 2010, and begin to train graduate residents from both College of Family Physicians of Canada and Royal College programs in the years 2012 and 2014 respectively. The Waterloo Wellington campus will, by the year 2014, have 15 students per year in the undergraduate program for a total 45, as well as 42 residents[17].

The current model for clerkship training would include Family Medicine training with a major teaching unit in Kitchener; Internal Medicine training at St. Mary's General Hospital; Paediatrics and Psychiatry training at Grand River Hospital, Surgery and Obstetrics and Gynecology training at Cambridge Memorial Hospital and Emergency Medicine distributed across the three Waterloo Region general hospitals.

[17] There are also plans for an educational role for the Guelph General Hospital in this program, but as a review of that hospital is outside the purview of this undertaking, a discussion of that role is not included here.

The DeGroote School of Medicine and the Waterloo hospitals may wish to defer initiating clinical education in the Waterloo hospital Emergency Departments until such time as the ED clinical and operational issues have been resolved and services stabilized

The hospitals will have to plan fastidiously for the advent of enhanced teaching roles. Both capital and operating costs will increase, and there will be a need to develop an infrastructure (space, computers, secretarial support, etc.) to support teaching[18]. There will be significant implications for Emergency Medicine as a consequence of this undertaking. For instance, residents may become first responders to ED consultation requests, thus slowing the process of care and delaying decision making. It is imperative that all of the clinical implications and related costs associated with the new role be identified and planned for to avoid any reductions in the responsiveness and quality of Emergency Department services.

Given the current operating issues in the Waterloo EDs and the concerns regarding the fragility of emergency services in Waterloo we are concerned about the short term viability of introducing clinical education into these Emergency Departments. We are also concerned about the implications for clinical opportunities for residents in consulting services such as internal medicine and psychiatry of an unstable Emergency Department. In the absence of excellent clinical mentors in the Emergency Department, and the guarantee of appropriately triaged, evaluated, and managed patient referrals from the Emergency Department to consulting services, the educational experience will be adversely affected.

The DeGroote School of Medicine and the Waterloo Region hospitals may wish to defer initiating clinical education in the Waterloo Region hospital Emergency Departments until such time as the ED clinical and operational issues have been resolved and services stabilized.

[18] Some space to support the teaching activity has been identified in Kitchener Waterloo.

6.0 'Top Ups' For Physician Services

Much of the difficulty in recruiting and retaining Emergency Physicians to the three Waterloo Region hospital Emergency Departments is attributed to concerns regarding discrepancies in pay for Emergency Physicians among the Waterloo Wellington hospitals and between these hospitals and other hospitals in south central Ontario.

The real and perceived practice of topping up physician incomes with hospital funds is destabilizing the availability of hospital based physicians and thus destabilizing hospital services in the province

We are concerned that the real and perceived practice of topping up physician incomes with hospital funds is destabilizing the market for hospital based physicians. Providing financial incentives over and above and provincially negotiated agreements will only lead to an environment of competition between and among hospitals for the provision of care by a limited cadre of care providers. It will lead to a constant escalation in the top up rates of pay, an unstable workforce, and increasing erosion of the hospital operating budgets, which are the source of this incremental funding.

We believe that top up payments to physicians to ensure hospital coverage violates the nature of the agreement between the Ontario Medical Association and the Ministry of Health and Long-Term Care which ensures that the Ontario Medical Association is the sole bargaining agent for all physicians in Ontario. For individual physicians, or physician groups, to engage in separate negotiations with individual organizations or departments violates the spirit and the legislation surrounding the provincial agreements.

Agreements between the Ministry of Health and Long-Term Care and the Ontario Medical Association should be renegotiated so as to provide equitable arrangements and sufficient funds to ensure need coverage for hospitals across the province

Importantly, any monies that are paid to Emergency Physicians, or other physician groups, are redirected out of the hospital's global budget. This will, inevitably, affect the amount of money available to provide patient care. It will result in operational decisions such as reduced hours or volumes of service and potentially bed closures that will affect the availability and quality of patient care. Thus, physicians' agreements that require hospitals to use operating funds to provide physician compensation will have a negative impact on physicians abilities to provide hospital care for their patients.

Although the Ministry of Health has stated unequivocally that top-ups are not allowed; until recently it has taken no action to eliminate the practice. The Emergency Physicians in the three Waterloo hospitals involved in this review see this as fundamentally inequitable and unfair. The Ministry should enforce its policies in this area. The Ministry has just

announced its intention to audit the finances of AFA hospitals in the region to determine if 'top ups' are being paid. The announced review is welcome, but since 'top ups' may also be used in Fee for Service hospitals, the finances of these hospitals should be included in the review. Also, since this is a provincial issue and behaviours of hospitals just outside the boundaries of the region will have an impact on hospitals within the region we suggest that the Ministry conduct a province-wide audit of this practice.

In addition to top up dollars provided to Emergency Physicians, there are a variety of other top-up or incremental fee arrangements for other physician services within their hospitals. While varying from institution to institution these include, but are not limited to, augmented fees for after-hours coverage of critical care areas, fees and/or guaranteed minimum income for hospitalists, and guaranteed minimum incomes for the provision of on-call services in some departments over and above the HOCC money provided by the MOHLTC. Not inappropriately, the Emergency Physicians do not wish to be singled out as the one department or division that is prohibited from receiving such payments, given the fact that the legislative restriction was designed to apply across all physician programs and services. Also, especially in the case of hospitalists, physicians who could work in the ED are often equally qualified to work in other areas of the hospital. Compensation packages for these other services serve as disincentives for physicians to work in Emergency Departments.

If current fee agreements between the Ministry of Health and Long-Term Care and the Ontario Medical Association are inadequate to ensure physician attendance to real coverage requirements of hospitals, then these agreements should be renegotiated so as provide equitable arrangements and sufficient funds to ensure coverage as needed by hospitals across the province.

Recommendation:

It is recommended that:

(12) The Ministry of Health and Long-Term Care should enforce its policy of no payments from hospital funds for ED physician clinical services and extend this policy to provide for no top up payments of any kind for coverage of physician clinical services.

7.0 MedEmerg International Inc.

The services of MEI have been invaluable in ensuring the continuity of Emergency Department Services in Waterloo Wellington

All three Waterloo Region hospitals have negotiated with MedEmerg (MEI) to supplement Emergency Physician services. The services of MEI have been invaluable in ensuring the continuity of Emergency Department Services in Waterloo Wellington. However, there are several reasons the hospitals should not be using an agency to provide physician services on an ongoing basis. The contract with MEI is expensive. There is an hourly charge levied by MEI for each hour of service provided by its physicians. In addition, the hospital is required to pay for out-of-pocket expenses related to travel and local living expenses for some physicians provided by MEI. .

There are inherent inefficiencies in the use of agency staff

There are inherent inefficiencies in the use of agency staff. It is difficult for agency workers to be as productive as hospital staff. Because MEI physicians do not work in the departments consistently they are less familiar with hospital policies, procedures, processes and practices than hospital staff. They will need to learn on an ad hoc basis, how to notify consultants, the location of equipment, how to use computer systems, etc., all of which take time and reduce their productivity. Responsibility for orienting the MEI physicians to ED processes and supporting them in their work in the department frequently falls on nursing which will reduce the productivity of nursing staff. The burden placed on nursing is a hidden cost of the use of agency physicians in the ED. The loss in productivity from nursing and the low productivity of agency physicians will exacerbate issues of backlog and long waits in already overburdened Emergency Departments.

MEI physicians are often not familiar with the staff or the unique culture of the Emergency Department and, the staff of the department and of the hospital don't know the MEI physicians. As a result working relationships need to be developed quickly. This is often difficult. It is especially difficult in working with consultants who are unsure of the quality of the information being provided to them when requested to consult on cases in the ED.

It is recognized that an agency such as MEI must be used at a time when a hospital is facing an acute shortage of physicians to ensure that the department remains open and provides service to a community. It is imperative that all hospitals work as aggressively as possible towards eliminating the routine use of agencies to provide medical coverage of their EDs. Also the

continuing use of agency physicians for large numbers of shifts over extended periods of time has destabilized the physician human resource pool in Waterloo Region and is contributing to the difficulties in keeping the Emergency Departments operating.

Recommendation:

It is recommended that:

(13) Cambridge Memorial Hospital, Grand River Hospital and St. Mary's General Hospital should proceed as aggressively as possible to eliminate the use of agency physicians in staffing their Emergency Departments

8.0 Grand River and St. Mary's General Hospital

8.1 Integrating Management and Operations

The effectiveness of the Emergency Departments in Kitchener Waterloo is dependant on the managerial and clinical competence of the hospitals

The effectiveness of an Emergency Department is highly dependant on the managerial and operational strength of the hospital. There is a need to have strong managerial and clinical competence at the Kitchener Waterloo hospitals if their Emergency Departments are to become more effective and efficient in addressing the needs of emergency patients in Kitchener Waterloo. Because clinical programs in Kitchener Waterloo have been rationalized so that some are hosted at Grand River Hospital and others are hosted at St. Mary's General Hospital, the clinical activities of the two hospitals are inextricably linked and more importantly, each Emergency Department is at least partially dependent on the clinical programs and clinical staff located at the other hospital. Thus, the effectiveness of both Emergency Departments in Kitchener Waterloo requires that both Grand River Hospital and St. Mary's General Hospital function effectively.

HSRC directed GRH and SMGH to merge their medical departments but allowed them to continue as separated hospitals with independent governance and management

Grand River and St. Mary's were directed by the Hospital Services Restructuring Commission (HSRC) to merge their medical departments. However, each was allowed to continue as a separate hospital with separate boards and senior management. This has resulted in a model in which physicians are engaged in the provision of service within an integrated medical department under the direction of a common Department Chief, but work in two different hospitals with different organizational cultures, different operating policies and processes and different management structures, philosophies and processes. Quite naturally, physicians (and other staff) compare and contrast organizations and develop an affinity for the culture, practices and processes of one over the other. In response to the different cultures, practices and processes, physicians and others have developed different behaviours within each organization. As a result, some physicians have selectively chosen to nominally affiliate themselves with one hospital or the other, and preferentially locate their practices at one or the other hospital because of their preference for the prevailing culture and management practices at that organization.

Some physicians have substantially located their practices at one or the other hospital because of a preference for the prevailing culture and management practices at that organization

Grand River Hospital has not fared well in this realignment of physicians between the two hospitals. Grand River Hospital has been seen as a hospital which fails to effectively identify issues, develop response strategies, and implement them. It is believed that although issues are raised, the issues are discussed indefinitely with no closure and as a result there is no resolution of issues and no change in policies, practices or processes. Conversely, St. Mary's General Hospital is seen as a highly responsive organization. Issues are identified and resolved, action plans created and implemented, changes are made to policies, practices and/or processes and issue resolution is communicated to key stakeholders; and all is done within reasonable time frames.

As an example of the failings of Grand River Hospital, many interviewees indicated their disappointment that few of the recommendations of a previously conducted review of emergency services at Grand River Hospital had been implemented in the four years since the review was completed. Many of the issues identified in the previous review continue to exist today, and are contributing significantly to the issues currently being faced by Emergency Department care providers. Importantly, the issue of consultant response times continues to be a serious problem at Grand River Hospital, and has only recently been addressed, but not necessarily resolved, with the development of a consultant response time policy.

Program management at SMGH is seen to be more effective than the management structure at GRH

In addition, St. Mary's General Hospital uses a 'Program Management Model'. It is perceived that Program Medical Directors (and program administrative leaders) have clear and explicit mandates, are remunerated in recognition of their contribution to the hospital, and are able to effectively and efficiently identify and implement needed changes within a program. The management model at Grand River Hospital is not seen to be as effective as the Program Management model at St. Mary's.

It is clear that the management model in place at St. Mary's General Hospital has been much more successful in getting the respect of front-line care providers. It is also evident that the program management model has served that organization well.

Integrated program management would be able to develop, implement and maintain common care maps, medical directives, and clinical protocols at both sites

With the merger of medical departments, it would be more effective if there were more similarity of care processes and integration of clinical activity between the two hospitals. The most effective model would be an integrated program management structure spanning the two hospitals. The programs would have unified leadership with that leadership accountable to the management of the two hospitals. This would provide for more consistency in direction, policies, practices and processes for medical staff and other care givers. The integrated program management would be able to develop and implement common care maps, medical directives, and clinical protocols at both sites. It would simplify practice and thereby improve the quality, effectiveness and efficiency of care processes at the hospitals.

Integration of clinical and operational management would significantly improve the efficiency, effectiveness and quality of hospital care in Kitchener Waterloo

A logical extension of the integration of program management would involve integration of hospital management to create integrated management processes and management positions (below the position of CEO). This would similarly simplify management and administrative processes and functions. It has been shown to be effective in centres across Ontario. Integration of clinical and operational management would significantly hasten the identification and implementation of opportunities to maximize the efficiency, effectiveness and quality of care including the introduction of care maps, medical directives, and clinical protocols which should be common across both sites. This will inevitably lead to lower costs and enhanced quality.

Recommendations:

It is recommended that:

(14) Grand River Hospital and St. Mary's General Hospital should establish integrated programs operating under a program management structure for all clinical services.

(15) Grand River Hospital and St. Mary's General Hospital should establish integrated management positions to support the integration of clinical programs.

8.2 Medical Advisory Committee

With respect to the Medical Advisory Committee of all three hospitals, it would be useful if a lay Board Member were a member of the MAC. The MAC is an Advisory Committee of the Board of a hospital. It is a governance committee

accountable to the Board for the quality of medical care within the hospital. The Medical Advisory Committee and its members work with hospital management to identify and implement hospital policies, procedures and processes that facilitate quality medical care. Medical departments are accountable to the MAC for the quality of their clinical practice in the hospital. Issues in clinical practice like those identified in the Emergency Departments are discussed at the MAC. Were a lay Board Member present a lay perspective on the issues would be available to the MAC and a lay interpretation of the discussion and advice of the MAC would be available to the Board. Ideally, the Board Member appointed to the MAC would also serve as Chair of the Board's Quality Committee. This joint appointment would enhance the Board's ability to monitor and ultimately ensure the quality of care provided by the hospital.

Recommendation:

It is recommended that:

(16) The Boards of Cambridge Memorial Hospital, Grand River Hospital and St. Mary's General Hospital should appoint a lay member of the Board to serve on the hospital's Medical Advisory Committee.

8.3 Rationalization of Services

There has been essentially full staffing of the St. Mary's ED and serious difficulties in fully staff the Grand River ED

During the current physician human resource shortfall all three Waterloo Region hospitals have committed themselves to providing 24 hour, seven day per week ED services. This may not be possible. Recognizing the inability to fully staff both departments, permanent ED physicians in Kitchener Waterloo have preferentially chosen to work at the St. Mary's site rather than at the Grand River site. This has resulted in essentially full staffing of the St. Mary's ED and an inability to fully staff the Grand River ED. Grand River Hospital has needed to use a large number of shifts provided by MEI in order to keep its ED open.

Of GRH and SMGH, only GRH has the scope of services needed to respond to the full range of patient problems that may present in the ED

St. Mary's General Hospital is a lower volume Emergency Department than the Emergency Department at Grand River Hospital. The overall hospital is smaller with a limited scope of inpatient services. Specifically, there are no inpatient services for mental health, obstetrics and gynecology, or pediatrics at St Mary's Hospital. Furthermore, St. Mary's General Hospital's operating rooms are designed and staffed

for use primarily for elective and outpatient procedures[19]. Grand River is the designated site for "hot" surgery. As a result, St. Mary's does not have the scope of clinical services needed to support the full range of patient problems that may and do present at the ED.

Thus, if only one Emergency Department were to be fully supported and maintained on a 24 X 7 basis, it should be the Grand River Emergency Department. Despite its problems, only GRH (of GRH and SMGH) has the scope of services needed to respond to the full range of patient problems that may present in the ED.

Local ED physicians have agreed to spread themselves over both Kitchener EDs supplemented by physicians provided by MEI

However, neither of the physical plants is capable of providing for the total volume of emergency patients seen in the community or providing all the inpatient care which is necessary to meet the needs of the community. Thus both sites are required for both urgent and inpatient care.

It will be some time before recruitment provides a sufficiently large cadre of Emergency Physicians to support full hours of service at both sites. In the meantime, the local ED physicians have agreed to spread themselves over both sites supplemented by physicians provided by MEI.

Should there be continuing, unresolvable physician staff shortages, the St. Mary's site could be designated as an urgent care center on an interim basis

Should there be continuing, unresolvable physician staff shortages, the St. Mary's site could be designated as an urgent care center on an interim basis. As an urgent care centre, it would operate from 9 a.m. to 9 p.m. daily. Such a designation poses several difficulties, but coping with these difficulties is preferred to losing access to the ED and emergent admission to Grand River Hospital. The major difficulty in operating an 12-hour urgent care centre will be the disposition of patients who either present after the hours of closure, or whose episode of care has not been completed by the time the urgent care center closes. Also, as currently, there will be patients who present to St. Mary's who will be in need of admission to hospital for whom transfer arrangements will be necessary. In addition, because St. Mary's serves as a regional referral center for cardiac services, it will be necessary to develop procedures to ensure that there is a safe and secure method of ensuring that cardiac patients are rapidly evaluated, resuscitated and stabilized even when the urgent care centre at St. Mary's is closed..

[19] Occasionally, out of hours surgery will be conducted at St. Mary's, primarily for emergent needs of in patients.

9.0 ED Management and Operations

9.1 Leadership

9.1.1 SMGH and GRH ED Leadership

There should be unified leadership of Emergency Services in Kitchener Waterloo

It has been long recognized that the Emergency Departments at St. Mary's General Hospital and Grand River Hospital should function under single medical leadership. Mr. Timbrell recommended that the single "lead" for Emergency Services should be sited at St. Mary's. However, although we agree that there should be unified leadership of Emergency Services in Kitchener Waterloo, we feel that the "home base" of the physician Chief of the department is irrelevant. He or she should be aware of all the issues at both sites, and have responsibility for ensuring appropriate staffing, quality of care, etc. in both venues.

However, it is questionable whether a single chief will be capable of undertaking all of the administrative responsibilities necessary, particularly given the current circumstances. The hospitals may wish to consider appointing a single chief with two site chiefs, or alternatively, a single Department Chief, with an Associate or Assistant Chief being situated at the other site.

The chief may then wish to designate individuals other than him or herself as being the individual responsible for a variety of administrative functions, including, among others, education, scheduling, quality assurance, or recruitment and retention.

This determination should, however, be left to the new Chief of the department once he or she has the opportunity to fully appreciate the workload of the position without support from one or more Associate or Site Chiefs.

At the current time, there is a vacancy, and interim chiefs have been appointed at each site. It is essential that these individuals are well remunerated for their contributions until such time as a new Chief is appointed. He or she will also require considerable mentoring from the Chief of Staff, and an enhanced level of cooperation and collaboration from Chiefs of other clinical departments.

The hospitals should recruit a new leader for the department as soon as possible

It is imperative that the hospitals recruit a new leader for the department as soon as possible. The Chief must have specialty certification in Emergency Medicine from either the RCPS or the CFPC. Also, bearing in mind the difficulties currently facing the department, and the anticipated new roles to be adopted by the Emergency Department, particularly in the areas of undergraduate and postgraduate education, the hospitals should focus on the recruitment of an individual particularly skilled in communication, conflict resolution, and education. This individual may be sought internally, locally, and nationally in an effort to identify the best available candidate.

In order to optimize care provision in the department, as well as develop an administrative structure capable of fulfilling the multiple mandates the department, it will be necessary for the hospital to commit sufficient resources not only to pay the new Chief's salary, but also to provide him or her with administrative funds sufficient to appoint and remunerate individuals to take responsibility for functions such as quality assurance, education, research, and other activities in keeping with the hospitals strategic goals and mission.

This individual will also need to have dedicated office space, dedicated secretarial support, and sufficient administrative technologies and support services to allow him or her to fulfill the role successfully.

Recommendation:

It is recommended that:

(17) Grand River Hospital and St. Mary's General Hospital should commence immediately with a national search for a new Chief of Emergency Medicine.

9.1.2 CMH ED Leadership

The Cambridge Memorial Hospital Emergency Department currently lacks permanent leadership. An individual has been contracted (through MEI) for the provision of leadership services for a period of six months. However, the individual who has been filling the position is viewed as a "outsider", and owing to the fact that his contract is for a six-month period, the perception among many caregivers is that he will be unable to effect and implement meaningful long-term change. Additionally, some of his philosophies of emergency service delivery are in conflict with the expressed wishes, desires and

existing practice patterns in the department. For instance, notwithstanding the desire and willingness of nursing staff to develop a series of medical directives which would result in their initiating investigations and treatment prior to a patient being seen by a physician, it is reported that the interim medical director has clearly expressed his opposition to this model.

Recommendation:

It is recommended that:

(18) Cambridge Memorial Hospital should proceed as quickly as possible to recruit a new Chief of Emergency Medicine.

9.2 Transdisciplinary Care

A highly collaborative transdisciplinary approach to care is the optimal model to ensure the delivery of quality emergency services

Whether a hospital chooses to operate in a programmatic or departmental model, we believe that a highly collaborative transdisciplinary approach to care is the optimal model to ensure the delivery of quality emergency services. This requires the establishment of a number of committees focused on important departmental activities such as education and quality assurance, and the existence of an overarching committee with representation from nursing, other health professionals, and physicians, to ensure comprehensive discussion of all the issues and operating principles of the department.

A highly collaborative relationship between the chief and nurse manager in any emergency department will assist in addressing many operational issues and provide the staff with the sense that there is strong consistent leadership and direction for the emergency department.

It is critical that the nurse manager and frontline ED staff at each of the three sites studied participate in the recruitment process of the new emergency department chiefs. Leadership style will be a key success factor in resolving the current physician and nursing issues.

9.3 Emergency Department Management Processes

Required departmental management activities have not been conducted for a significant period of time

As a consequence of the lack of a devoted leader, and the degree of turmoil in all three departments, many of the required departmental management activities have not been conducted for a significant period of time.

For instance, there has been a lack of regularly conducted professional development rounds, morbidity or mortality reviews, or quality assurance activity. In order to assure a high-quality highly functional department, it is imperative, even before new chiefs are appointed that the departments designate individuals to ensure the conduct of these activities, and promote regular attendance and participation. Not only physicians, but nursing staff and other health professionals should participate in each of these activities.

9.3.1 Professional Development

The hospitals' Departments of Emergency Medicine should have effective programs of professional development for members of their department

Currently, the Emergency Departments at Cambridge Memorial Hospital, Grand River Hospital and St. Mary's General Hospital either do not have or are just reinstituting monthly meetings. Importantly, they have not had any Emergency Department specific morbidity and mortality reviews or continuing education activity for many months. There is also no history of departmental retreats or strategic planning exercises which are transdisciplinary.

It is essential, not only to maintain department quality, but also to recruit and retain highly motivated, academically oriented Emergency Physicians, that a department have an effective program of professional development. This includes, at a minimum, monthly departmental meetings at which attendance is monitored regular morbidity and mortality reviews which should be attended by all providers, including physicians, nursing staff and other health professionals, and a regular continuing professional development program, with rounds monthly, at a minimum.

While it is accepted that during the current human resource shortfall, insisting on attendance at such activities may be difficult, in the long run participation should be required and it should be included in the hospitals future performance appraisal process.

Additionally, in order for a department to succeed in building "teams" and effectively plan its future, including human resource needs, capital equipment, educational activities, and other infrastructure changes, it is essential that departmental planning exercises using a retreat format be conducted on an annual basis. Initially, this planning should focus on the affirming or redeveloping the mission, vision and values of the department. A separate planning process should focus on resolving issues that have been identified as important during the previous year. These may include, among other items,

issues of communication, conflict resolution, relationship with consulting departments, or the educational program.

9.3.2 Performance Appraisal Process

Chiefs should conduct a performance appraisal of each member of their department

Members of the SMGH/GRH Department of Emergency Medicine expressed concerns regarding the hospitals' physician performance appraisal process. The process was viewed by some members of the Department as being arbitrary, dogmatic and unfair. Some felt that review of their performance by the Department Chief was inappropriate. However, although the process may have been flawed, it is not only appropriate, but necessary, for Chiefs to conduct performance appraisals of members of their department on a regular basis.

If performance appraisals are to be meaningful, they must be consistently applied, transparent, and perceived as fair. They should also be viewed as developmental, focusing not only on failings, but also ways and means of improvement. They should provide developmental and performance objectives that will be the focus of the next review. They should also provide an opportunity for forthright exchange focusing on the performance of not only the appointee, but also the department and the leader, and thus need to be bidirectional in nature.

The performance appraisal process should focus on a variety of areas. These should include documentation of specific procedural skills that the individual possesses, and /or needs to acquire or may no longer wish to perform. If unable to perform certain essential procedures, serious consideration of a physician's suitability for ongoing Emergency Department practice should be discussed.

In the future as the EDs become a teaching site, competencies must also include teaching skills, interpersonal skills, including relationships both with patients and families, as well as other members of health care team, and contributions to necessary departmental tasks such as peer reviews, quality assurance, or administrative tasks. Thus, the process must provide opportunities for other individuals to anonymously evaluate the performance of the individual under consideration.

In addition, individuals must have a clear understanding of any specific skills which they will be required to obtain or maintain to remain active within the department. This may include, for instance, mandatory renewals or updates of knowledge in areas such as cardiac or trauma resuscitation.

Any performance requirements, such as attendance at rounds, medical staff association meetings, or department meetings should also be communicated, measured and reported upon at the time of the performance appraisal.

The process should include both a documentation process and a personal interview followed by a summative evaluation which is mailed to the individual under consideration, and become part of his or her personnel record.

The parameters and methodology of the review must be widely publicized and explicitly understood by all members of the department. Department members should also recognize that at the time of performance evaluation they will be provided with an opportunity to comment on opportunities for the Chief to improve his or her performance, not only as a department administrator and mentor, but as an advocate for the department as a whole. For instance, comments regarding opportunities to improve capital equipment, change staffing patterns, or engage in physical plant renovation should be welcomed during the performance appraisal.

Recommendation:

It is recommended that:

(19) The Chiefs of the Department of Emergency Medicine at Cambridge Memorial Hospital, Grand River Hospital and St. Mary's Hospital should conduct an annual, comprehensive performance appraisal of each member of their department.

9.4 Kitchener Waterloo Emergency Medical Associates

There is no formal relationship between KWEMA and the hospitals

Kitchener Waterloo Emergency Medical Associates (KWEMA) is a grouping of the Emergency Physicians engaged in the provision of services at St. Mary's General Hospital and Grand River Hospital. The organization has no legal standing, and is not an incorporated entity. There is no formal relationship between the group and the hospitals; there is no contract for the provision of services, nor is there recognition of the organization in the hospitals' bylaws.

The hospitals' model of provision of emergency services involves credentialing individual physicians and granting appointments to the Department of Emergency Medicine. KWEMA has no formal or informal role in that process.

By operating as an extra jurisdictional body, KWEMA has the potential to significantly undermine the hospitals' management processes. It may operate asynchronously from the strategic directions decided upon by the hospital or the Department and its Chief.

While individual physicians can, and should, continue to have the freedom to associate with peers and colleagues outside the hospital either socially or professionally, it is inappropriate for this organization to negotiate hospital policies and procedures outside of the existing departmental or program structures.

At the time of appointment, all physicians should be reminded that they are being appointed to the Medical Staff of the hospital and within the hospital are members of the Department of Emergency Medicine. As members of the Department they are accountable to the Department Chief, who acts as an agent of the Board of Directors. At the time of appointment, all physicians should be required to acknowledge that they have read and understood at the hospital's rules, regulations and bylaws.

The terms of the ED AFA require the development of a governance agreement reflecting the decision making processes of those signing the agreement. It is appropriate, although not necessary, for KWEMA to be the signatory to the AFA. While KWEMA should not be involved in hospital policy development or decision making, it is entirely appropriate for it to function as a business entity administering and distributing AFA funds. When members of the Emergency Department serve, as they should, on search committees or other hospital administrative bodies, they must operate as members of the Department of Emergency Medicine, reflecting the needs and interests of the Department and the hospital and not the interests of KWEMA.

9.5 Emergency Department Productivity

Until departmental operations are normalized and patient waiting times brought under control, it may not be possible to reduce staffing in the hospitals' EDs to achieve peer levels of productivity

The following exhibits present an examination of three productivity performance indicators for the EDs at the hospitals. Labour productivity is measured as worked hours (of nursing and support staff assigned to the ED) per Equivalent Visit[20]. Labour productivity has been declining in the St. Mary's and Cambridge EDs. Labour productivity at Grand River has been reasonably stable for the last three years. However, in 2005/06 labour productivity at all three hospitals has been worse (more hours per equivalent visit) than the median performance of Ontario peer hospitals. Were the hospitals to achieve the median performance of their peer hospitals, they would be able to significantly reduce ED operating costs. This analysis would suggest that the number of worked hours in the Waterloo Region hospital EDs is likely sufficient for the current patient volume. However, current delays in patient care are likely affecting the work content of each patient visit. Until departmental operations are normalized and patient waiting times brought under control, it may not be possible to reduce staffing in the hospitals' EDs to achieve peer levels of productivity. In fact, under current conditions, staffing at GRH may be inadequate. Additionally, in our analysis of the individual hospitals we suggest changes to the mix and scheduling of staff in each of the EDs to better meet the needs of ED patients.

Exhibit 37: Productivity in Waterloo Wellington Hospitals[21][22]

GRAND RIVER HOSPITAL	Actual Performance				
Performance Indicators	**2002/03**	**2003/04**	**2004/05**	**2005/06**	**% Change**
Worked Hours per Equiv Visit	1.8017	2.0107	2.0304	2.0238	12.3%
Var NL non-drug$ per Equiv Visit	$6.59	$9.94	$10.68	$10.88	65.1%
Drug$ per Equiv Visit	$5.78	$3.43	$2.65	$4.36	-24.5%

[20] Admitted patients in the ED are converted to equivalent visits using a ratio of 1 admitted patient is equivalent to 4 ED visits.

[21] It should be noted that the worked hours for the St. Mary's General Hospital Emergency Department include the time for porters who are not included in the reported staffing for many peers and furthermore, the porters at St. Mary's spend much of their time on housekeeping tasks that would normally be included in worked hours for housekeeping and not ED.

[22] It should be noted that the worked hours for Cambridge Memorial Hospital for years prior to 2005/06 understated or did not include Management and Operational Support (MOS) staff worked hours. As result the worked hours per equivalent visit for those years may be understated.

ST MARY'S HOSPITAL	Actual Performance				
Performance Indicators	**2002/03**	**2003/04**	**2004/05**	**2005/06**	**% Change**
Worked Hours per Equiv Visit	1.8883	2.3294	2.3997	2.8682	51.9%
Var NL non-drug$ per Equiv Visit	$6.54	$8.54	$8.75	$8.79	34.4%
Drug$ per Equiv Visit	$9.96	$10.21	$9.71	$10.43	4.6%

CAMBRIDGE MEM.	Actual Performance				
Performance Indicators	**2002/03**	**2003/04**	**2004/05**	**2005/06**	**% Change**
Worked Hours per Equiv Visit	1.2895	1.4113	1.5828	2.2887	77.5%
Var NL non-drug$ per Equiv Visit	$10.50	$13.49	$10.93	$17.82	69.7%
Drug$ per Equiv Visit	$7.21	$8.26	$8.10	$7.71	6.9%

PEER HOSPITALS	Potential Target Performance Indicators				
Performance Indicators	**Minimum**	**Best Quartile**	**Median**	**Worst Quartile**	**Mean**
Worked Hours per Equiv Visit	1.4165	**1.7995**	**1.9647**	2.1559	2.0067
Var NL non-drug$ per Equiv Visit	$5.73	$9.07	**$10.46**	$12.69	$11.17
Drug$ per Equiv Visit	$3.84	$6.13	$7.71	$9.19	$7.73

9.6 Department of Internal Medicine

In Kitchener Waterloo, Internal Medicine services are divided between the St. Mary's and Grand River sites. Cardiology and Respirology are located at the St. Mary's General Hospital. Thus, patients requiring consultation or inpatient management presenting with primary problems relating to the cardiorespiratory system are referred to St. Mary's General Hospital for admission. There are no General Internal Medicine Specialists at St. Mary's General Hospital. Coverage of patients deemed appropriate for this service is managed by hospitalists, relying upon consultation from other specialized services. Gastroenterology covers both hospitals. Other services, such as endocrinology, serve as consulting services at both sites. There is some cardiology service available at Grand River, but this is primarily offered by senior physicians credentialed as general internists. For complex cardiology, the Grand River site is dependent either upon transfer of patients, or a visiting consultation from a physician located at St. Mary's General Hospital. Similarly, some services are consolidated at the Grand River site [e.g. oncology].

St. Mary's General Hospital and the Department of Internal Medicine should establish a General Internal Medicine Most Responsible Physician model of inpatient care at St. Mary's General Hospital

This arrangement can, and does, result in patients waiting extended periods of time before being consulted upon, as well as significant fractionation of care. It results in Emergency Physicians referring patients for internal medicine care at the St. Mary's site to hospitalists who may have less postgraduate training in the management of seriously ill patients than the Emergency Physician who initiates the referral.

It is recognized that, at the current time, there is not a sufficient number of general internists in the community to provide a General Internal Medicine Most Responsible Physician (MRP) model at St. Mary's General Hospital. However the current arrangements do not ensure the availability of a specialist who would have the necessary training to meet the care requirements of the hospital's Emergency Department patients. St. Mary's General Hospital and the SMGH/GRH Department of Internal Medicine should establish as its objective and work to achieve a General Internal Medicine MRP model of inpatient care at St. Mary's General Hospital.

It is also recognized that bearing responsibility for consultation at two sites with the current complement of internists and medical subspecialists poses a significant workload issue that needs to be addressed. This may be accomplished by assigning one sub-specialist, on a rotational basis, to the 'underserviced' site every month.

Recommendation:

It is recommended that:

(20) The Grand River Hospital/St. Mary's General Hospital Department of Medicine should develop and implement a human resource plan that will ensure appropriate resources for consultation and inpatient management at both sites.

9.7 Department of Diagnostic Imaging

Notwithstanding the HSRC directive that single medical departments be formed across both hospitals, there continue to be separate Departments of Diagnostic Imaging at St. Mary's General Hospital and Grand River Hospital.

The hospitals should create a single, integrated call radiology call schedule

It is reported that there is not a sufficiently comprehensive array of skills available at each sites to ensure that all imaging modalities are available at all times. This results in an inefficient model for the provision of radiology services, with

2 call schedules in place, and the occasional need, to cross refer patients for specialized investigations at the other hospital. If both St. Mary's General Hospital and Grand River Hospital are to maintain Emergency Departments, in order to maintain and to ensure quality patient care, imaging modalities should be equally available to patients at both sites in an equally timely manner and with similar quality. The hospitals should create a single, integrated radiology call schedule, which is configured to ensure the availability of specialized resources [such as CT, MR. etc.] at both sites on a 24X7 basis.

It is recognized that the hospitals are currently engaged in the search for a single chief. This search needs to find a person with strong leadership skills and an understanding of current trends in diagnostic imaging clinical practice and education.

Recommendations:

It is recommended that:

(21) Grand River Hospital and St. Mary's General Hospital should create a single Department of Diagnostic Imaging to support both hospitals headed by a chief with strong leadership skills.

(22) The single Department of Diagnostic Imaging should develop and implement a single call schedule for the provision of services at both St. Mary's and Grand River Hospitals.

9.8 Overcrowding Policies

St. Mary's General Hospital has recently developed an overcrowding policy designed to respond to Emergency Department overcrowding. This protocol is triggered when hospital occupancy is maximized and patients are experiencing an unacceptable wait, ambulances are in offload delay, or the movement of patients out of the Emergency Department is insufficient to create capacity for arriving Emergency Department patients to be assessed and treated.

The overcrowding policy provides for moving patients to their assigned unit to wait for a bed, rather than being kept in the Emergency Department

The policy provides for moving patients to their assigned unit to wait for a bed, rather than being kept in the Emergency Department. It first ensures that discharged inpatients awaiting transport home are moved off the inpatient unit to areas where they can wait pending transportation. It requires that consultants see Emergency Department patients awaiting consultation within one hour. To free up beds, individual

physicians will be asked to facilitate discharges. If all the above fail to relieve overcrowding in the patients will be transferred to inpatient units, even if no bed is immediately available.

It would be advantageous for a policy to deal with overcrowding to be consistent across all three hospitals. However, we are concerned, as indicated in other sections of this report, that the policy currently proposed is reactive rather than proactive, and thus has inherent inefficiencies. Owing to the fact that the number of admissions via the Emergency Department is predictable within a narrow band, not only in terms of the total numbers, but the numbers of patients likely to be transferred to specific services, it is possible to develop a model which predicts the number of beds which will be necessary in any given inpatient service on any day.

While the St. Mary's overcrowding policy addresses the needs expressed by the Emergency Physicians, and might be appropriately implemented on an interim basis, we suggest that it is not a long-term or lasting solution. We do, however, agree with the suggestion that at times of overcrowding patients should be transferred to inpatient units even if no bed is immediately available. This will effectively distribute the workload among all nursing staff, rather than having it all absorbed by Emergency Department nurses.

It will also result in nurses on inpatient units advocating with admitting physicians for the discharge of patients. Physicians are more likely to be responsive to the urging of nurses with whom they work on inpatient units than to Emergency Department nurses.

Additionally, experience in other centers which have implemented similar policies has revealed that such strategies do, in fact, result in reductions in the time for transfer of patients from the Emergency Department, primarily due to shortened length of stay on inpatient units.

Notwithstanding the above comments, however, it is imperative that the Waterloo Region hospitals move towards the development of policies which guarantee that a number of beds on medical, surgical and psychiatric units are unoccupied at midnight, thus guaranteeing unfettered access to inpatient beds for the following day's Emergency Department admissions.

9.9 Bed Management

Beds should be assigned to waiting ED patients when and where potential inpatient discharges are identified

A number of other activities may also greatly assist in dealing with the issues of overcrowding. In the past, the hospitals convened morning bed rounds. These are reported as currently being ineffective at Grand River Hospital, in terms of actionable outcomes. It is important that actions are initiated at these meetings; priorities should be established and decisions made regarding admissions, discharges and transfers. Beds should be assigned to waiting ED patients when and where potential inpatient discharges are identified. These beds should be vacated and cleaned and ED patients should be transferred to them within a maximum of two hours. To facilitate this process, discharged patients who are well enough to sit in a chair should be accommodated in a patient lounge on the unit rather than continuing to occupy an inpatient bed.

Regular attendance at the bed meeting should be considered mandatory for resource nurses, unit managers and other key support personnel such as environmental services and infection control. Senior executives should also attend as needed, particularly at times when there are difficulties in obtaining access to inpatient beds.

It is also becoming common to establish a clinical position for the assignment of beds. This position has proven to be a valuable and important adjunct to effective bed management processes. This individual is responsible for the coordination of activities to enhance patient placement and flow. The role requires an individual with excellent clinical, communication and interpersonal skills. Clinical expertise ensures that the individual is knowledgeable about disease entities, epidemiologic issues and circumstances that may impact patient placement. This position, among other functions, may:

- facilitate structured multidisciplinary bed meetings to provide an organized approach to patient placement
- provide direction to patient registration, nursing units, the environmental services and the emergency department to determine appropriate placement of patients
- collaborate with nursing units and environmental services to prioritize cleaning of rooms
- conduct rounds on nursing units to expedite and facilitate turnaround

- communicate with the emergency department to prevent the backup of admissions

Discharge planning is a comprehensive process that should, begin at the time a decision is made to admit a patient to the hospital in the ED or in the physician's office

In seeking to further refine the full capacity protocol, the hospitals' bed allocation and management guidelines were also reviewed. As currently constituted, the planned discharge time for all patients is 9:00 hours. It is, in our experience, difficult to coordinate a large number of discharges at the same time. It is also unrealistic to expect that all family members will be able to arrive, and all laboratory results and other investigations be completed and reported by this time.

Conversely, it is important that patients and families have a clearly articulated expectation of the time at which discharge is to occur, and to create systems that ensure that necessary arrangements to facilitate the discharge [completion of lab tests, writing of prescriptions, arranging appointments, etc.] are completed by the planned time of discharge.

It is also recognized that a further impediment to discharges is the unwillingness of physicians who are providing weekend coverage to discharge their colleagues' patients. This reluctance may arise either as a consequence of a lack of knowledge of the patients' comprehensive health history, or a concern that, as a consequence writing a discharge order, the discharging physician will be left with responsibility for completing a discharge summary. This issue can be satisfactorily circumvented by incorporating the "discharge unless" policy discussed earlier in this report

We suggest that discharge planning is a comprehensive process, which can, and appropriately should, begin at the time the patient is seen in the Emergency Department, or, if certain indicators are present [such as advanced age, living at home alone, a multiplicity of medical problems, etc.] are identified in the consultant's office prior to an elective procedure being booked in the operating room. Discharge planning can be greatly facilitated by empowering individuals to begin the discharge/placement process as early as possible in an episode of care.

When patients are seen in the office in consultation for possible elective procedures or surgery, surgeons should have available a risk assessment tool which would indicate the need for prior assessment by social work, CCAC or other organizations. If this is not possible to arrange in advance, such consultations should be part of the admission process,

ideally as part of the evaluation in the preoperative assessment clinic.

Equally, social workers should be assigned to the emergency department, at a minimum for 16 hours a day seven days a week, and empowered to do independent case finding.

In some circumstances, it is entirely appropriate for the social worker, or others, to seek consultation (without the need for physician approval) with services deemed to be appropriate to assist in determining the supports which will be necessary to facilitate discharge [such as occupational therapy, geriatric consultation team, etc.] in order to minimize not only time from initiation of consultation to receipt, but to mobilize appropriate resources early in the course of care, and begin planning for complex discharges [such as by the completion of placement forms etc.].

Patients and families should be notified as soon as possible after admission of the expected date for discharge

These strategies, used in concert, will optimize patient flow into and out of the hospital and thus minimize Emergency Department overcrowding.

Recommendation:

It is recommended that:

(23) Grand River Hospital and St Mary's General Hospital should develop common bed management policies and processes to ensure the availability of beds for ED patients needing admission to the hospital.

9.10 Complaints Procedure

During the review process, the Investigator invited comments from the communities served by the hospitals. Many responses were received. A significant percentage of the comments focused on Grand River Hospital where previously initiated complaints were not satisfactorily resolved from the perspective of the patient and/or family. It is recognized that some of the concerns that were expressed by patients or families would likely be encountered in other busy Emergency Departments, and are, at the current time, beyond the scope of the hospital to resolve.

Hospitals should acknowledge and respond to patients' complaints in a timely manner

However, it is essential, in order for the organizations to maintain their positive profiles within the community, to ensure that patients who do initiate complaints have their concerns acknowledged and responded to a timely manner. It is also essential that the process of adjudicating complaints be seen as transparent and fair. We frequently heard that complaints about physicians were responded to by the Department Chief, without the provision of an opportunity to respond being provided to the individual about whom the complaint was initiated.

In dealing with complaints about physicians (or any element of hospital operations) good practice is to acknowledge complaints within three business days of receipt. This may occur either via a phone call or a form letter which is returned to the individual initiating the complaint assuring them that the complaint has been received, and that a report will follow in a fixed timeframe. One individual within the organization should have responsibility for coordinating the activities necessary to respond to the complaint. This may either be a quality assurance officer, an ombudsman, a Department Chief, or a designated other. That individual should ensure that the complaint is read, the necessary documentation to evaluate it [such as patient charts, lab data, etc.] are collated copied and distributed to the appropriate individuals, and that the individual about whom the complaint is initiated is notified in a timely manner and given a fixed timeframe to respond. Once the response is received, the department Chief [if he or she is the individual coordinating the activity] should review the letter, the supporting documentation, and the physician response. Subsequent to this, the department Chief should engage in a private conversation with the individuals involved in order to determine fully their perspective on the complaint.

Following this, the Department Chief, or designate, should compose a response to the complainant, and ensure that it is vetted by the Department Chief [if not written by him or her], and the individual about whom the complaint has been made. Once these individuals have read the response, it should be forwarded to the patient and/or family.

If the complaint is a significant one, and should result in changes in the care process in the department or hospital, the individual initiating the complaint should be invited to a multidisciplinary meeting of hospital staff and asked to provide a narrative regarding their concerns. It has been demonstrated in many organizations that this face-to-face interaction with individuals who initiate complaints for which

a significant response is deemed necessary helps quickly diminish the likelihood of subsequent litigation, while also providing a significant learning opportunity for the organization.

In addition, a hospital should create a mechanism which tracks the number of complaints initiated against each physician, the significance of the complaints, and any consequent litigation or limitation of privileges that ensue. The frequency of complaints and their nature should be part of the performance appraisal process for each physician.

Recommendation:

It is recommended that:

(24) Cambridge Memorial Hospital, Grand River Hospital and St. Mary's Hospital should develop consistent processes for receiving, acknowledging, investigating and responding to patient complaints

10.0 Grand River Hospital

In this section of the report we present findings and discuss issues that have particular relevance to Grand River Hospital (GRH).

10.1 Emergency Department Performance

Patients have long visit times in the GRH ED. Shortening ED visit lengths is imperative to improve the quality of patient care and the quality of work life for ED staff. The following exhibits present the ED waiting times for each shift for patients presenting as CTAS Levels 1, 2 & 3 and for patients presenting as CTAS Levels 4 & 5..

Exhibit 38: 2005/06 Median Times – CTAS 1, 2, 3, by Shift – Grand River

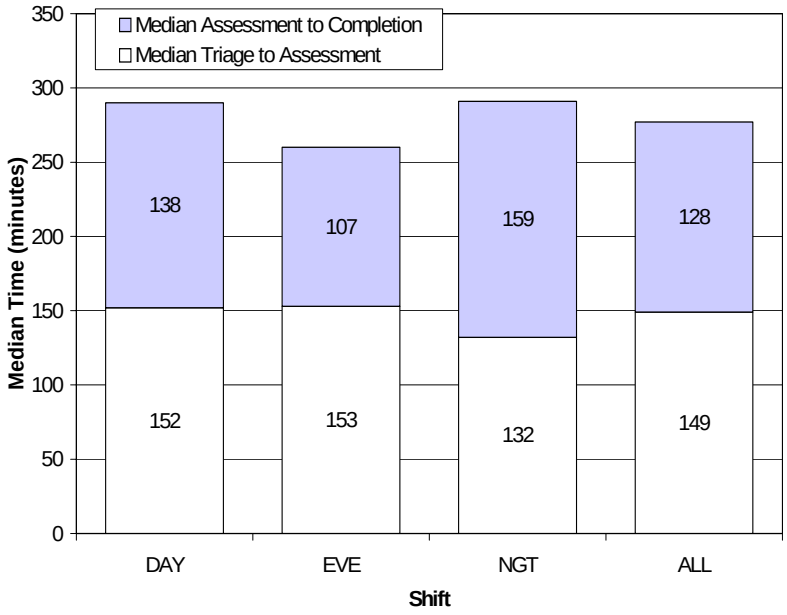
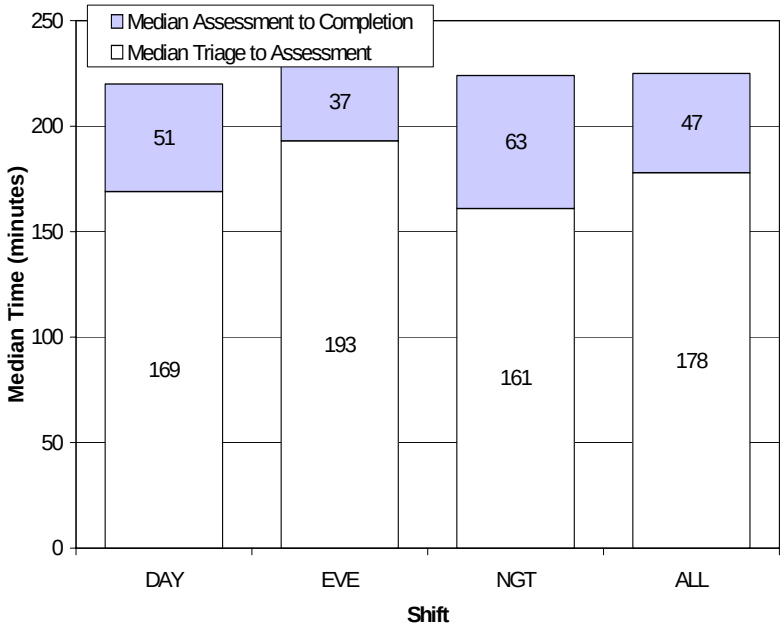


Exhibit 39: 2005/06 Median Times – CTAS 4 and 5, by Shift – Grand River



10.2 Management Structure

Grand River Hospital has a mix of program and departmental management models. Formerly, the hospital had a program management model, but has seems to have abandoned this model and has moved towards a more traditional departmental model. However, medical departments continue to have "program directors" with an administrative responsibility, but no clinical program director role. Most clinicians were unaware of the model in which the hospital operates.

There is an administrative council for Emergency Medicine, with multidisciplinary input. As suggested elsewhere in this report, the council should consider the inclusion of department ambulance services representation.

Notwithstanding previous recommendations that Grand River Hospital should have a Program Council, at which program directors and medical leaders of departments would meet and discuss issues of common interest, such a structure does not exist. Such a forum would provide an opportunity for broad discussion of new strategic plans, human resource and clinical service planning and capital equipment acquisition. It would allow for departments to support each other, or, in the alternative, avoid duplication of services or programs.

Senior nursing management has been very supportive of the Emergency Department manager and staff and is a strong advocate for the nursing in the hospital. However, it is important, particularly during times of perceived crisis, for senior management to ensure visibility to the front-line emergency department staff. At the current time, the team at this site feels that their situation is deteriorating, and they require significant support. Staff found out from the media, rather than from senior management, that the emergency department was not closing. They feel that they come to work uncertain as to the future of the Emergency Department at Grand River, and their professional careers. They feel that communication from the hospital has been inadequate. As a consequence there is lack of trust in the senior management team.

The Emergency Department manager has also been placed in a challenging position. There has been turn over in the department chief role, compounding his difficulties even further. His focus necessarily has been on dealing with current issues. The current crisis and has taken away from his capacity for team building and strategic planning.

10.3 Physical Plant

Grand River Hospital Emergency Department is modern, with the capacity to be a highly functioning ED serving up to 60,000 visits

The physical plant of the Grand River Hospital Emergency Department is modern, with the capacity to be a highly functioning ED serving up to 60,000 visits. . However, the current cadre of nursing staff is unable ensure that all areas of the department can be used to their optimal level. This is particularly true with respect to the paediatric area, which is often closed, or may be used by adult patients. The hospital is the only facility in the community with a paediatric program, and it is essential that the integrity of this program and the supporting physical space be maintained.

It is also essential that the special needs of children, in terms of environmental needs, quality of nursing care, and access for parents, be respected.

Recommendation:

It is recommended that:

(25) The Chief of Emergency Medicine and the Emergency Department Manager at Grand River Hospital should ensure that the paediatric area of the Emergency Department is used only for the care of

children and is available 24 hours per day, 7 days per week.

10.4 Technology Supports

Grand River Hospital has a fully functioning PACS installation which has helped greatly with the transmission and interpretation of diagnostic images.

Emergency Department tracking system should be enhanced to incorporate important quality assurance reports

The Emergency Department tracking system has recently undergone some improvements, but needs to be further enhanced in order to automatically generate important quality assurance reports. These can, and should, include reports such as consultant response times, time to completion of laboratory tests, etc. The inclusion and automatic generation of these reports will significantly augment the hospital's quality assurance program while also facilitating discussions between departments regarding performance.

Recommendation:

It is recommended that:

(26) The Chief of Emergency Medicine, the Emergency Department Manager and the CIO at Grand River hospital should implement improvements in the ED Patient Tracking System

10.5 Medical Staffing

The department must create criteria that define full-time and part-time physicians, and develop a system of recruitment, credentialing, and retention which clearly articulates the expectations of physicians who apply to the hospital for privileges. It is suggested, for instance, that full time be defined as a 1450 hours of service per year, with the expectation that physicians provide approximately equal numbers of hours at each site, with their hours of service to be apportioned across the available shifts [i.e. proportionate numbers of days, evenings, nights, holidays etc.], with a financial incentive established for those who commit and provide full-time service. The department should provide newly recruited emergency physicians with a letter of employment detailing the expectations of their performance

Recommendation:

It is recommended that:

(27) The Chief of Emergency Medicine at Grand River Hospital should develop explicit employment criteria for Emergency Physicians

The hours of physician service that would be provided by an AFA will be sufficient once recommendations contained in this report are implemented

The department's visit profile was reviewed to determine if the proposed hours of funded coverage by the MOHLTC for an AFA were reasonable. In conducting this review we considered the MOHLTC AFA staffing model based on patient volume and acuity, the American College of Emergency Physician guidelines and a recent Canadian publication reporting the actual time spent per patient by Emergency Department physicians. In our opinion, particularly once recommendations contained in this report are implemented, the hours of physician service that would be provided by an AFA will be sufficient. The MOHLTC has indicated a willingness to develop a phased in model for the AFA pending recruitment to the GRH site which should ease the coverage issue.

10.6 Nursing

Nursing staff at Grand River Hospital are universally reported as being of excellent quality, highly committed and collegial. However considerable concern was expressed about the difficult working conditions, the shortage of staff and increasing nursing staff stress and burnout. There is also concern that future recruitment and retention of nurses will be increasingly difficult Currently, while there are only one full-time and two part-time vacancies, seven nurses are off on long-term disability.

Although the budgeted FTEs and "baseline staff" is seemingly adequate for the emergency department size and volume, the nurses report that they work short on most days due to sick calls or the inability to fill specific shifts. The current staffing pattern is very complex, with multiple shifts overlapping one another and different quotas on different days of the week. Although ideally a schedule should be built to staff according to utilization and workload in peak periods, having such a complex schedule makes it almost impossible to replace staff during holidays or sick leave. As a consequence, the department is frequently short staffed, and at other times may be overstaffed when replacement staff cannot work the specific replacement shift.

10.7 Support Staff

10.7.1 Unit Clerks

As indicated elsewhere in this report, there must be a clear explicit mechanism for chart flow. Currently, there is a clerk assigned to the order entry function. This individual is a "floater" who moves around the department to assist the nurses with orders. Because of a lack of a designated space for this individual, and the fact that he or she is moving about the department, nurses oftentimes do their own orders as the clerk is not available. The clerks are keen to be more helpful, but the current pattern of care and physical setup do not allow for this. Clerks should have a designated space in which to work, and there should be one clerk assigned to be acute-care area, and one to intermediate care. Currently, there is insufficient budget for clerical staff to allow such a model.

Recommendation:

It is recommended that:

(28) The Grand River Hospital Emergency Department Manager should provide for two unit clerks on the day and evening shifts.

10.7.2 Porters

Portering at GRH is not sufficiently responsive to the needs of the ED

Portering at GRH is a centralized service. This system is not sufficiently responsive to the needs of the ED which is contributing to delays in the throughput of ED patients. Response times to requests for portering service are poor. To improve flow within the emergency department, portering should be decentralized to the Emergency Department. The department should have dedicated portering staff focused on patient transport in the emergency department, transports to and from diagnostic imaging, room stocking, maintaining linen supplies, and general support of emergency department staff. These individuals should report to the Emergency Department Manager.

Recommendation:

It is recommended that:

(29) The Grand River Hospital VP responsible for Support Services should decentralize portering to the Emergency Department.

10.7.3 Volunteers

Volunteers appear to be suboptimally used in the department. Well-trained volunteers can address many patient and family concerns, particularly at times when there are extended waits encountered for access to care. These individuals can also notify nursing staff of the impending departure of patients who have not yet seen a physician, or the apparent decompensation of patients in the waiting room.

Recommendation:

It is recommended that:

(30) The Head of Grand River Hospital's Volunteer Program and the Emergency Department Manager should develop and implement strategies to maximize the use of volunteers in the Emergency Department.

10.8 Consultant Relationships

Previous reviews have focused on the suboptimal nature of the relationship between consulting departments and the Emergency Department at Grand River Hospital. Recently, the hospital has invoked a consultant policy introducing timelines for response to consultation requests from the Emergency Department. Introduction of this policy is welcome, but much remains to be done to further improve the nature of relationship and to ensure compliance with the policy.

Frequent rude and abusive behaviour and language by consulting staff

It was reported that frequently rude and abusive behaviour and language are directed at Emergency Department care providers by consulting staff. There remains a lack of clarity regarding the disposition of patients who might be referred to a variety of services [e.g. GI bleeds to medicine or surgery, pelvic fractures to orthopaedics or medicine]. There is also a lack of willingness of some departments to comply with previously made suggestions which are seen as posing opportunities to significantly improve throughput in the Emergency Department. For instance, the development of rapid follow-up clinics would facilitate earlier discharge of emergency department patients who could be seen in such clinics the following day.

Some consultants, apparently, are unwilling to allow emergency physicians to discharge or admit patients to hospital on their behalf, and instead insist the patients remain in the Emergency Department overnight without the benefit of

consultation until the consultant is willing to see the patient the following morning.

Surgeons have also been reported as asking that patients who have been seen at the St. Mary's General Hospital Emergency Department, and deemed to be in need of admission and/or surgery, be kept in the Emergency Department overnight rather than admitted directly to a bed at the Grand River site

All of these phenomena contribute to negative outcomes. They cause patients to wait unnecessarily. They increase the time until ultimate disposition decisions are made, and lead to congestion in the Emergency Department, thereby inhibiting the inflow of patients. They are seen as condescending by Emergency Department care providers. The hospital must develop and enforce a plan to ensure that such behaviours stop.

Recommendation:

It is recommended that:

(31) The Chief of Staff, the Chief of Emergency Medicine and the Chiefs of Medicine and Surgery at Grand River Hospital should develop and implement policies to provide for timely and appropriate response to requests for consultation made by Emergency Department staff.

10.9 Patient Flow

Patient flow is facilitated by medical directives and clinical protocols. However, there remain a number of issues which are interfering with appropriate patient flow in the ED. These include turnaround time in diagnostic imaging and the laboratory.

Recently, a great deal of attention has been paid to the issue of diagnostic imaging turnaround time, it is reported that improvements have occurred. It will, however, be important to continue to monitor performance in this area and to ensure continuing process improvement.

There was great difference of opinion between laboratory and emergency department personnel regarding laboratory turnaround time performance. This relates, principally, to concern as to whether the delay is encountered primarily because of laboratory issues, or because of the failure of Emergency Department personnel to enter requests and submit

specimens in a timely manner. It was reported that Emergency Department nursing staff remain reliant on laboratory personnel to draw blood samples, rather than doing this independently. Drawing of samples should be done at triage, or alternatively by Emergency Department nurses as soon as orders are written.

There is also an opportunity to introduce more point of care technology. Currently, only glucometer readings are determined at the bedside. In order to facilitate patient throughput, urine dipsticks as well as pregnancy tests should be done by Emergency Department nursing staff. Additionally, the department should acquire of point of care testing for care haematology and biochemistry testing.

Recommendations:

It is recommended that:

(32) The Chief of Staff, Chief of Emergency Medicine and the Chief of Diagnostic Imaging at Grand River Hospital should monitor, regularly report and work to improve diagnostic imaging turnaround times

(33) The Chief of Staff, Chief of Emergency Medicine and Chief of the Laboratory Medicine at Grand River Hospital should monitor, regularly report and work to improve laboratory turnaround times.

(34) The Chief Nursing Officer and the Manager of the Emergency Department at Grand River Hospital should provide for drawing of blood samples by Emergency Department nursing staff.

(35) Chief of Emergency Medicine and Chief of the Laboratory Medicine at Grand River Hospital should introduce an expanded range of point of care testing in the Emergency Department.

10.10 Ambulatory Care

Grand River Emergency Department has extremely long waits from triage to physician assessment for fast track patients. It should be possible for the hospital to significantly decrease the time to see a physician for this group. Key changes to reduce visit times should include staffing the area with a designated nurse and physician or nurse practitioner for 12 to 16 hours per day and moving patients from beds to chairs after being seen (while waiting for results or reassessments). If provided

with comfortable chairs, patients should be able to sit and receive intravenous therapy or antibiotics. The current physical plant is perceived as being capable of accommodating this process redesign.

The process redesign should include a "rapid triage" process for CTAS level 4 and 5 patients, who should then be sent directly to an internal waiting room [the current room 29 is suggested]. Rooms 31 to 34 should be designated for ambulatory care.

The department should then strike an internal process improvement team, including the department manager, staff nurses and physicians, and a representative from diagnostic imaging as well as a nurse practitioner in order to redesign the care process in this area.

Recommendation:

It is recommended that:

(36) The Grand River Hospital Emergency Department Manager should initiate a process redesign project to reduce the time from triage to physician assessment in the fast track area

10.11 Mental Health Services

The emergency department crisis team is very responsive and provides excellent service

The emergency department crisis team is very responsive and provides excellent service. They act as consultants, perform comprehensive assessments and make recommendations to the emergency physician and psychiatrist on call. They are called directly from triage to expedite care. Sixty percent of patients referred to the crisis team are seen in less than an hour.

However, the current mental health room is in a poor location, and is unsafe as it cannot be monitored appropriately. The room should move into the intermediate care area, and the space designated for mental health services should increase to two rooms [rooms 25 and 26 are suggested] in order to adequately address the volumes of mental health patients seen, and to decrease the number of behaviourally disturbed patients who leave the department without seeing a physician.

Recommendation:

It is recommended that:

(37) The Grand River Hospital Emergency Department Manager should move the mental-health seclusion rooms to the intermediate care area

10.12 Clinical Decision Unit

Grand River Hospital does not have a Clinical Decision Unit (CDU) despite previous recommendations that one be created. The rationale for such a facility is found in earlier sections of this report. Such facilities reduce admissions to hospital, decrease costs, and provide high quality outcomes. Ample evidence attests to their utility. As recommended in a prior section of this report, the Chief of Emergency Medicine and the Emergency Department Manager at Grand River Hospital should establish a Clinical Decision Unit. The CDU should be under the administrative and clinical control of the emergency department, and operate on the basis of widely circulated and discussed protocols. Consulting services must agree to respond promptly to admission requests if patients fail to improve sufficiently after their course of therapy in the CDU.

10.13 Follow-up Clinics

As recommended elsewhere in this report, the hospital should establish rapid follow-up clinics for medical and surgical patients.

10.14 Discharge Planning

Comments regarding the difficulties with discharge planning are interspersed throughout this report. Particular attention is drawn to Length of Stay Management in Psychiatric Services. Psychiatry often has admitted patients in the Emergency Department for extended periods of time. This is a particularly unsuitable environment for psychiatric patients.

Of note, the average length of stay in psychiatry exceeds the provincial average and is much longer than achieved by similar hospitals indicating an opportunity for more effective bed management.

It is acknowledged that one third of psychiatric patients admitted to the Grand River Hospital come from a nursing home, posing significant difficulties in arranging for discharge. Such patients will need the attention of CCAC

providers, as well as negotiation of agreements between the hospital and nursing home regarding the capacity of the nursing home to manage such patients and their willingness to accept the patients' return. The hospital may wish to consider investing in a specialized geriatric psychiatry program.

Reducing length of stay will provide the ability to admit more patients and minimize the number of psychiatric patients waiting in the Emergency Department for extended periods

In addition, the hospital may benefit greatly from the establishment of psychiatric day units or a psychiatric day hospital program, or enhanced collaboration with community-based mental health services in order to facilitate discharge from the inpatient unit and maximize the efficient use of inpatient resources. Reducing length of stay will provide the ability to admit more patients and thus and minimize the likelihood of psychiatric patients being forced to stay in the Emergency Department for extended periods. It is perceived that at the current time community mental health services are not effectively using available resources to care for patients in the community. It was commented that they are process as opposed to outcome focused. An example cited was that despite the fact that there is funding in place for enrolling up to 100 patients with the ACT team, it has taken 18 months to get 25 patients enrolled.

It is reported that the siloing which occurs between the hospital and the community may be a result of the conflict between a medical model employed by the hospital and a psychological/behavioural model prevalent in the community.

Recommendations:

It is recommended that:

(38) The Grand River Hospital/St. Mary's General Hospital Department of Psychiatry should increase the use of day programming and outpatient options.

(39) The Grand River Hospital/St. Mary's General Hospital Department of Psychiatry should develop and implement strategies to shorten lengths of stay at GRH.

11.0 St. Mary's General Hospital

In this section of the report we present findings and discuss issues that have particular relevance to St. Mary's General Hospital (SMGH).

11.1 Emergency Department Performance

Patients have long visit times in the St. Mary's General Hospital ED. Shortening ED visit lengths is imperative to improve the quality of patient care and the quality of work life for ED staff. The following exhibits present the ED waiting times for each shift for patients presenting as CTAS Levels 1, 2 & 3 and for patients presenting as CTAS Levels 4 & 5.

Exhibit 40: Median Times – CTAS 1, 2, 3, by Shift – SMGH

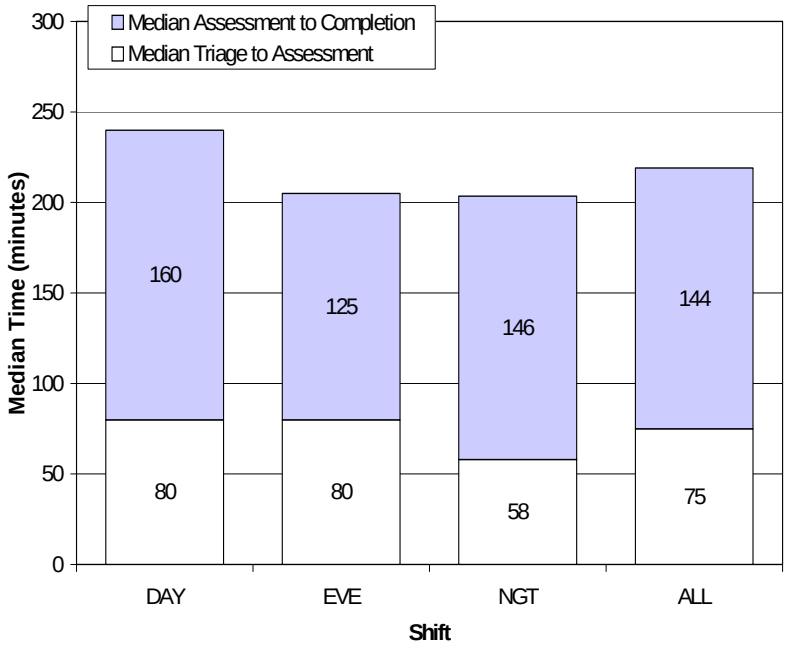
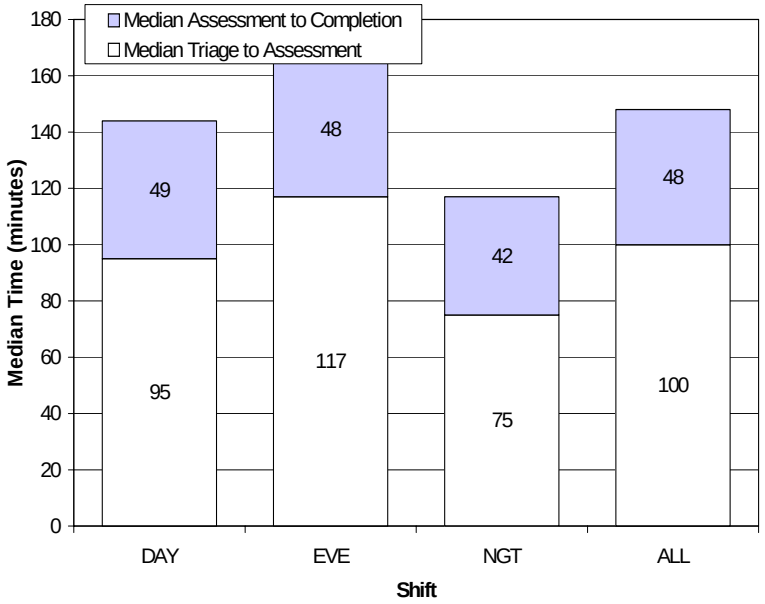


Exhibit 41: Median Times – CTAS 4 and 5, by Shift – SMGH



11.2 Leadership

St. Mary's General Hospital is managed in a program management model. It is generally reported that this model is highly functional and highly successful.

Emergency Medicine has a program committee with representation from multiple disciplines. It is described as working well. Meeting minutes are posted in Meditech, and are available to all care providers. It is reported that problem-solving regularly occurs either in this forum or in staff meetings.

There are a limited number of medical directives, but work is ongoing on developing several more. There are care maps for myocardial infarction and stroke as well as diabetic ketoacidosis, but few others exist. It is recognized that the presence of such directives would facilitate care, and standardize it to an "evidence based best practice" model. Given that there is a single Department of Emergency Medicine and that Emergency Services should be an integrated service of St. Mary's and Grand River Hospital, the two hospitals should collaborate in the development of medical directives, clinical protocols, and care maps for commonly encountered Emergency Department conditions. These directives should be common to both sites

11.3 Physical Plant

The physical plant is felt to be adequate. While some beds are designated as a Clinical Decision Unit; the unit is not functioning as a CDU. Given that this is a center which focuses on cardiac and respiratory diseases, the potential for such a unit is great. It is an ideal venue for the rapid evaluation and management of patients presenting with undifferentiated chest pain. It has been well demonstrated in the literature that significant numbers of patients presenting with exacerbations of asthma and chronic obstructive lung disease can be safely managed in such units, and the need for admission obviated. Given that this site has reported difficulties with backlogs of admitted patients in the Emergency Department, a Clinical Decision Unit should be developed. A recommendation has been made elsewhere in this report to activate the CDU.

The department has no electronic patient tracking system. The hospital should acquire such a system to facilitate improved patient flow and to support quality measurement and monitoring.

Recommendation:

It is recommended that:

(40) The St. Mary's General Hospital Emergency Department Manager and the CIO should acquire an ED Patient Tracking System.

11.4 Staffing

11.4.1 Physicians

As mentioned elsewhere, emergency physicians have preferentially offered their services at this site. Unlike the other Waterloo Region hospitals, there has been limited difficulty encountered in ensuring sufficient Emergency Physician manpower to meet the required number of hours of service.

The funded hours of service offered by the AFA are appropriate for the site, particularly if recommendations elsewhere in this report are implemented.

We do have concerns regarding deficiencies in Emergency department management processes such as failure to have regular morbidity and mortality (M&M) reviews,

departmental meetings, strategic planning retreats etc. The Emergency should have its own process of M&M review, attended by all ED care providers on a monthly basis. In addition to any program wide processes held conjointly with the Department of Medicine, Emergency Medicine should also conduct its own annual retreat and strategic planning processes. In addition to the information gleaned from such exercises, they are a useful team building exercise and provide a regular forum in which all care providers in the Department may interact and problem solve in a collaborative, transdisciplinary model. The involvement of other specialty groups in departmental planning and programming should be enhanced. For instance, there is little input h from Laboratory Services regarding the evidence for the inclusion of specific lab tests in the investigation or management of clinical conditions. Equally, little consideration has been given to the department diagnostic imaging in developing protocols which would define the most appropriate diagnostic imaging technique for certain clinical conditions. It will benefit the department greatly to include these, and where appropriate, other partners, in the development of all care maps and clinical protocols Not only will the cost efficiency and quality of care improve with such considerations, but it would significantly contribute to developing a more collaborative and cooperative approach to care institution wide.

The department must create criteria that define full-time and part-time physicians, and develop a system of recruitment, credentialing, and retention which clearly articulates the expectations of physicians who apply to the hospital for privileges. It is suggested, for instance, that full time be defined as a 1450 hours of service per year, with the expectation that physicians provide approximately equal numbers of hours at each site, with their hours of service to be apportioned across the available shifts [i.e. proportionate numbers of days, evenings, nights, holidays etc.], with a financial incentive established for those who commit and provide full-time service. The department should provide newly recruited emergency physicians with a letter of employment detailing the expectations of their performance

Recommendation:

It is recommended that:

(41) The Chief of Emergency Medicine at St Mary's General Hospital should develop explicit employment criteria for Emergency Physicians

11.4.2 Nursing

Nursing staff at St Mary's General Hospital are universally reported as being of excellent quality, highly committed and collegial.

Even though nursing managers and educators from St. Mary's General Hospital and GRH meet regularly, it was reported that the nurses at both sites have a disparaging attitude towards their peers at the other site. Clearly, such behaviours do not serve the interests of nursing. or the patients that they serve Nursing leadership at both hospitals should develop strategies to maximize communication, collaboration, and cooperation between nursing staff at both sites

11.4.3 Other Health Professionals

Staff from the CCAC are generally available, but the profile of patients considered for service by the CCAC is limited. Specifically, there is no home administration program for patients receiving low molecular weight heparin, and several patients return to the emergency department on a repeated basis for the administration of intravenous antibiotics. This limitation on service has, apparently, been imposed by the CCAC largely because of concerns regarding the dosing of Coumadin, which can, in fact, be determined by existing nomograms. The hospital has, as a consequence, initiated a clinic in which a St. Mary's General Hospital Nurse Practitioner manages this cohort of patients. While providing a quality service, this poses an unnecessary burden of care on the hospital, and discussion should occur with the CCAC in order to ensure that the services are, in fact, delivered at home.

Recommendation:

It is recommended that:

(42) The Chief of Emergency Medicine and the Emergency Department Manager at St. Mary's General Hospital and the CCAC should develop a plan to extend the range of services delivered in people's homes by CCAC staff and contracted agencies to include such services as low molecular weight heparine and IV antibiotics.

11.4.4 Social Work

There is a social worker assigned to the department, who is felt to be a great support. The hours of service are felt to be adequate.

While there is both a social worker and a nurse practitioner available for geriatric consultation, the social worker only occasionally engages in independent case finding, and there are no criteria which would allow the social worker to independently seek consultations from other disciplines such as physiotherapy or speech therapy for patients presenting in the Emergency Department.

11.5 Consultant Relationships

The majority of consultations which originate in the Emergency Department at the St. Mary's site are transmitted either to cardiology, respirology, or general medicine. Other acute referrals are transferred to the Grand River site for consultation and possible admission.

The nature of the consulting relationship at St. Mary's is felt to be variable. In general, consultant attitudes and response times are appropriate. However, with respect to a small set of consultants performance is reported to be poor. Consultants do not cover overnight, and the emergency physician writes orders for the overnight care of patients, and then calls the consultant at 7 a.m. to refer patients. Emergency physicians retain responsibility for all admitted, referred, CDU and emergency patients. This is a high risk practice and it should be abandoned. It is officially discouraged by the Canadian Association of Emergency Physicians and the Canadian Medical Protective Association.

Recommendation:

It is recommended that:

(43) The Chief of Emergency Medicine at St. Mary's General Hospital should develop and implement policies to provide for the generation of a request for consultation for all patients at the time that the need is identified

(44) The Chief of Staff at St. Mary's General Hospital should ensure that consulting services accept responsibility for and respond to requests for consultation for all referred patients

There is no General Internal Medicine service and the provision of General Medicine consultations by hospitalists has led to concerns regarding the adequacy of care received by such patients. There is no doubt, given the volume of service required of a general internist at St. Mary's site, not only for supporting the Emergency Department, but also to support pre-and peri-operative evaluations on behalf of the surgeons, that a General Internal Medicine service should be developed. There is a plan to create a Medical Day Unit in the new physical plant in 2007 which would add to the work available for a GIM Service

Recommendation:

It is recommended that:

(45) The CEO and the Chief of Staff at St. Mary's General Hospital should develop and implement a plan for the creation of a full general internal medicine service at the hospital.

The hospital does have access to a Geriatrician, who is supported by a clinical nurse specialist who also acts as a resource for the CCAC Community Geriatric Service. The quality of evaluations offered by the nurse specialist is felt to be excellent, as is the timeliness of response to consultation requests. It is, however, clear that there is an insufficiently large cadre of physicians involved in the provision of geriatric services. The hospital may wish to consider the recruitment of additional family physicians with special training in geriatric medicine, or fostering opportunities for the existing cohort of family physicians to gain additional training, in order to ensure an adequate resource in the future.

A pharmacist is assigned to the ED to review orders and perform medication reconciliation. He or she collaborates with the geriatric Nurse Practitioner as well. Given the importance and frequency of polypharmacy in the elderly, the pharmacist should be given an explicit mandate to manage prescribing and treatment practices for this cohort of patients.

11.6 Patient Flow

The flow process for physicians to pick up new ED patients is inefficient. Nurses or clerks bring patients into a care area where the initial assessment is carried out, and then the nurse takes the chart into the subacute central physician area and places the chart in a rack on the wall. While the nurse conducting the primary assessment assigns a CTAS priority to

each patient that he or she evaluates and regularly reassess each of his or her patients; charts are not prioritized across all nurses within the CTAS levels, as no one person oversees the ordering of all patient charts. Also, it should be recognized that even within triage categories, patients have varying degrees of acuity. Thus, the current approach leads to some patients, particularly those within the same CTAS category being seen by arrival time rather than acuity.

Clearly, it is essential that as charts are placed on the rack, they are ordered according to triage level in order to ensure that patients are seen according to the acuity of presentation.

Ambulatory Patients are not being assessed by a nurse on arrival in order to determine their level of urgency

Upon entering the Emergency Department via the ambulatory entrance, there is a very small area with a podium where patients are directed to fill out a document that has a number on it.. Patients are then asked to take a seat. Patients are called to triage according to the number in the corner of the form. This is not a patient focused approach, as it does not work for patients with a language barrier, is cumbersome for the elderly, and problematic for patients feeling unwell or in pain. The process is also concerning as the patients are not being assessed by a nurse on arrival in order to determine their level of urgency. The area can get very congested and privacy is a significant concern.

Full sets of vital signs are done on all patients at triage; but it is not necessary to do this for CTAS level 4 and 5 patients, who should be quickly triaged and then directed to registration and sent directly into the minor area with their chart where a further assessment can take place if necessary.

Once in the rapid care area, a separate process for care utilizing either a nurse practitioner or dedicated physician, should be implemented. Charts for patients being treated in the fast track area should be kept in that zone.

Recommendation:

It is recommended that:

(46) The Emergency Department Manager at St. Mary's General Hospital should initiate process redesign of the care processes for fast track patients.

No concerns were expressed regarding the availability and timeliness of diagnostic imaging and laboratory services.

Reduce the number of SDS patients requiring admission and eliminate the need for the 23 hour stay unit

Access to inpatient beds at SMGH has been described as difficult. This results from a combination of factors, mostly due to a shortage of available inpatient beds. It was reported that large numbers of patients who presented for day surgery procedures stayed for extended periods of time postoperatively. In some cases, apparently due to a need for pain management, such patients were admitted to hospital, limiting the number of inpatient beds available to admissions from the Emergency Department. Concern was expressed that this may be a result of circumventing the need to admit patients electively, with the attendant longer waitlist for access to care. It was also felt that with the development of more well-thought-out perioperative management plans, many such patients could, in fact be discharged. In 2005, the hospital created a 23 hour stay unit in order to accommodate postoperative patients for an extended period of time before discharge. The Chief of Surgery should monitor the frequency of admission and the frequency of use of the 23 hour stay unit by day surgery patients. The Chief of Surgery should investigate the appropriateness of the patients and/or their procedures for outpatient surgery if they require extended periods of recovery in the 23 hour stay unit. The Department may need to better control the types of procedures and the condition of patients being scheduled for day surgery to reduce the number of patients requiring admission and eliminate the need for the 23 hour stay unit.

Recommendation:

It is recommended that

(47) The Chief of Surgery at St. Mary's General Hospital should work to minimize the frequency of admission and the frequency of use of the 23 hour stay unit by day surgery patients.

The hospital has introduced Expected Date of Discharge posting and is achieving compliance. There are also well attended daily bed meetings and a cohort of bed monitors who facilitate and ensure timely discharge.

While many care maps are either in place or in the course of development, their use should be expanded to the most common 25 to 50 admission diagnoses. All of them should be developed by transdisciplinary teams and be 'common' between St. Mary's General Hospital and Grand River Hospital.

There are a large number of patients (up to 6-12 per day) admitted to isolation, partly due to the selective concentration of respiratory patients at this site, but this likely reflects an excess utilization of isolation beds. This, effectively, limits the hospital's inpatient capacity even further.

Patient flow out of the emergency department may also be impeded by nurses on inpatient units who refuse to accept patient transfers at certain times of the day, such as breaks, lunches, and during report. It is inappropriate for inpatient units to refuse to accept patient transfers at such times. The hospital should develop policies that require the cleaning of vacated beds within a fixed timeframe [30 minutes is suggested], and, upon completion of the cleaning, that require the transfer of the patient out of the emergency department within a further 30 minutes.

Recommendation:

It is recommended that:

(48) St. Mary's General Hospital should develop policies to ensure the timely and efficient flow of admitted patients out of the Emergency Department

11.7 Follow-up Clinics

St. Mary's General Hospital should develop medical and surgical clinics for the evaluation of patients recently discharged from the Emergency Department or an inpatient bed.

There are some follow-up clinics for patients discharged from the inpatient units or the Emergency Department. These include heart function, Asthma, pulmonary function and COPD clinics. In addition, after hours endoscopy is available to shorten or avoid admissions. While such clinics are of great value in averting admissions and shortening length of stay the hospital may wish to create a General Internal Medicine clinic. As has been recommended previously, St. Mary's General Hospital should develop medical and surgical clinics for the evaluation of patients recently discharged from the Emergency Department or an inpatient bed.

11.8 Diagnostic Testing

Also, some patients are admitted to hospital from the ED because it is difficult to access diagnostic testing on a same day or urgent basis in any other way. By increasing the use of same day stress testing slots, significant numbers of patients may be discharged from the emergency department, and admissions avoided.

Recommendation:

It is recommended that:

(49) St. Mary's General Hospital should ensure the availability and use of same day stress testing for appropriate Emergency Department patients

12.0 Cambridge Memorial Hospital

In this section of the report we present findings and discuss issues that have particular relevance to Cambridge Memorial Hospital (CMH).

12.1 Emergency Department Performance

Patients have long visit times in the Cambridge Memorial Hospital ED. Shortening ED visit lengths is imperative to improve the quality of patient care and the quality of work life for ED staff. The following exhibits present the ED waiting times for each shift for patients presenting as CTAS Levels 1, 2 & 3 and for patients presenting as CTAS Levels 4 & 5.

Exhibit 42: 2005/06 Median Times – CTAS 1, 2, 3, by Shift – Cambridge

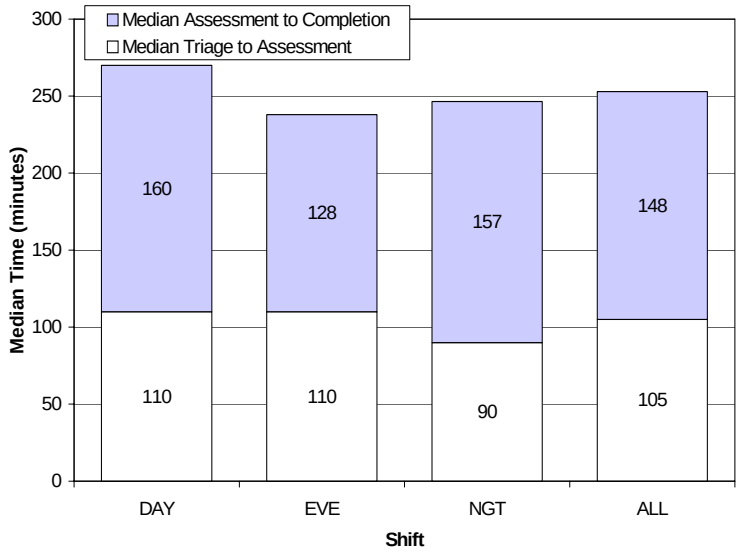
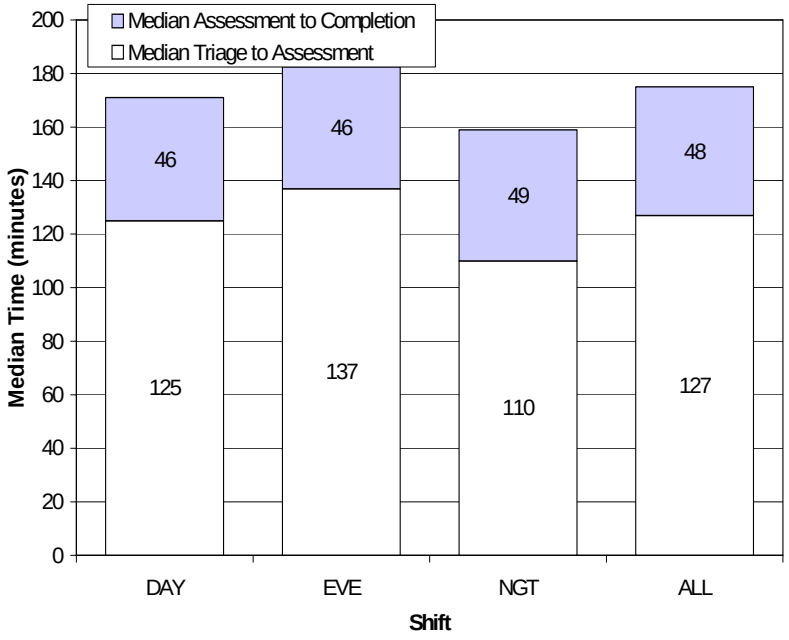


Exhibit 43: 2005/06 Median Times – CTAS 4 and 5, by Shift – Cambridge



12.2 Management

Historically, Cambridge Memorial Hospital employed a program management model. Latterly, this model has been abandoned, and the hospital is now managed in a departmental model. However, there are administrative program directors assigned to each program.

Clinically, the Emergency Department functions in a departmental model. This has inhibited intradepartmental opportunities to maximize the collaborative, transdisciplinary, collegial approach to issue identification and problem solving. The lack of a program committee or equivalent intradepartmental committee has diminished dialogue among the health professional groups employed the Emergency Department. While the ER Quality and Operations Council is composed of staff and physicians who interact with the ED, departmental and extra-departmental representatives expressed the opinion that there is a considerable opportunity to become more collaborative, for instance, in the development of best practice based care maps and clinical protocols.

12.3 Physical Plant

The triage nurse should be the first point of visual and interpersonal contact for entering patients

The current physical plant has an adequate size footprint and number of examining rooms and distribution of resources such as monitors etc. for the volume of Emergency Department visits. However, the physical plant currently is configured so that the majority of patients entering the department first confront registration personnel rather than the triage nurse. Standards of care dictate that the point of first contact should be the triage nurse. It is essential that the point of first visual and interpersonal contact be located in a position that "dictates" that this occur. Some patients (primarily the ambulance bound) enter via a different entrance which is closer to the triage station. However, these patients are accompanied by ambulance personnel who are familiar with the department and have already conducted an assessment of the patient. It is, therefore., less urgent that this cohort of patients first present to the triage station. In an ideal configuration. There would be two parallel entrances;. one solely for the use of ambulatory patients and one for ambulance patients. There would be 2 'streams "of flow, resulting in patients being seen at opposite ends of a single triage station. In the interim it should be possible to reconfigure it so that the triage nurse becomes the point of first visual and interpersonal contact for the majority of entering patients, by switching the assigned spaces for triage nurses and registration personnel.

As part of a larger hospital redevelopment project, a new Emergency Department has been planned for the hospital, but final approval has not been received. Under current plans, the new ED will be built in the second phase of the project. Consideration should be given to accelerating the construction of the new ED.

The hospital does not have a Clinical Decision Unit. As indicated elsewhere in this report, this is a valuable adjunct to decrease the number of admissions, and maximize the efficiency of use of inpatient resources. By expanding the current Emergency Department into the adjacent special care area, and capturing some of the space which is currently used for clerical staff, it should be possible for the hospital to create a 4 -6 bed clinical decision unit.

The information technology supports in the current department include a high-quality PACs system, and a hospital wide information technology platform. There is, however, no electronic patient tracking system available.

Tracking systems provide clinical efficiency, and facilitate patient throughput, as well as quality assurance activity in the Emergency Department.

Recommendations:

It is recommended that:

(50) Cambridge Memorial Hospital should reconfigure the spaces currently occupied by triage nurses and registration personnel

(51) The Cambridge Memorial Hospital Emergency Department Manager and CIO should acquire an Emergency Department Patient Tracking System

12.4 Staffing

12.4.1 Medical Staff

The hospital currently relies on a combination of full-time Emergency Department staff augmented by staffing from MEI The hospital has committed to the recruitment of a full complement of resident Emergency physicians, and has latterly been very successful in this pursuit. Use of hospital Emergency physicians instead of agency physicians should address concerns regarding a perceived predisposition by agency staff to refer and to order more investigations.

The most recent AFA agreement has been reviewed and it is felt that the number of funded hours is appropriate for the volume and mix of Emergency patients. The hospital is cautioned that this is true only if the additional responsibilities now assigned to Emergency Physicians are transferred to other physicians in the hospital. This must include responding to inpatient cardiac arrests and admitting patients from the ED.

Recommendations:

It is recommended that:

(52) The Cambridge Memorial Hospital Chief of Staff and Chief of Emergency Medicine should change hospital policy and procedures such that emergency physicians are not responsible for admitting patients to the hospital from the Emergency Department

(53) The Cambridge Memorial Hospital Chief of Staff and Chief of Emergency Medicine should change hospital policies and procedures such that emergency

physicians are not responsible for responding to cardiac arrests outside the Emergency Department.

12.4.2 Nursing Staff

The quality of nursing staff is felt to be excellent. There is, however, concern that many of the nursing staff are feeling the stresses and pressures of working in a department that has had a significant number of difficulties over the last few years and are at risk for burnout.

There is a group of six experienced nurses designated as a permanent charge nurses. This role has provided stability in terms of managing risk in the emergency department through their expert knowledge, critical thinking and decision-making skills. The inconsistent medical coverage, varying skills of physicians and the transience of the MEI doctors on duty has placed an added burden on the charge nurses. There has not been any formalized processes for mentoring potential recruits, orientation to departmental processes and standards, or maintenance of consistent practice standards among MEI physicians. Support for new Emergency physicians and physicians assigned by MEI has fallen to the charge nurses who also have responsibility to mentor new graduate nurses and pool nurses without emergency experience as well as to oversee the operation of the department.

Recommendation:

It is recommended that:

(54) The Cambridge Memorial Hospital Chief of Emergency Medicine should take responsibility for orienting, mentoring and monitoring MEI physicians.

12.4.3 Portering

Portering is a centralized service which, as a consequence, significantly contributes to delays in the throughput of patients. Portering should be provided by emergency department dedicated staff, and focus on patient transport in the emergency department, transport to and from diagnostic imaging, room stocking, maintaining linen supplies and general support of the ED staff. These personnel should report to the ED manager.

Recommendation:

It is recommended that:

(55) Cambridge Memorial Hospital should reassign one porter to support the ED and report to the Emergency Department Manager from 1100 to 2300.

12.4.4 Other Support Staff

12.4.4.1 CCAC

Staff expressed concern regarding scope of services provided by the CCAC. Notwithstanding efforts to initiate programs for the home management of patients requiring intravenous antibiotics wound care, etc., there are deficiencies in the services provided by the CCAC related to the needs of patients who might be discharged from the ED and who might be discharged earlier from hospital. Many more services can be provided in the home; they do not need to be delivered in a hospital. These service deficits place an undue burden of care on the hospital. Additionally, providing such services interferes with the efficient throughput of patients with urgent need for care. It should be possible for the hospital to negotiate with the CCAC to provide a broader range of services in the home.

If it is particularly difficult to expand services because of concerns of geography, time for travel, or the efficiency of utilization of skilled nursing staff, it may be possible for the hospital to provide space in the hospital and the CCAC to provide staff to deliver the service. In such a model a clinic could be created which would allow patients to return to the hospital for treatment, but for the treatment to be funded by and staffed by CCAC personnel.

12.4.4.2 Geriatric Services

There are excellent geriatric services provided in the hospital and in support of the ED, utilizing the services of a Geriatrician and a geriatric nurse clinician. These individuals are felt to provide a high-quality service which is generally available in a timely manner.

12.4.4.3 Crisis Team

There is also an excellent crisis team available 16 hours a day seven days a week. This team is composed of individuals from variety of backgrounds who often see patients presenting

with mental health issues before they are seen by the Emergency Physician. The team will then liaise with a psychiatrist who provides direction by phone. Unfortunately, there are times when patients in need of psychiatric consultation remain in the Emergency Department until the following morning, when they are reviewed by the psychiatrist. A model of care should be developed which allows for these individuals to be admitted or discharged, rather than kept in the Emergency Department. (In addition, there are also excellent community crisis services available.)

12.4.4.4 Social Work

Social Work services are provided in the Emergency Department for eight hours a day from Monday to Friday. It is felt that this service is sufficiently comprehensive in depth and breadth, particularly as it is often augmented by cross coverage from those working on the crisis service.

Recommendation:

It is recommended that:

(56) Cambridge Memorial Hospital, the CCAC and the LHIN should work together to expand the scope of CCAC services to better support discharge from the CMH Emergency Department

12.5 Consultant Services

There are concerns about the availability of consultants

In general, consultants are felt to provide excellent quality medical care. There are some concerns, however, regarding the availability of the consultants when called When patients are felt to be in need of inpatient care, the Emergency Physician is left to decide whether he or she feels the patient would best be treated by a hospitalist, a specialist, or the patient's Family Physician should he or she have one. If the patient is referred after 5 p.m., it remains the responsibility of the Emergency Physician to write orders, and arrange to have the patient admitted to hospital. This will occur even for patients admitted to a special care area.

A system in which Emergency Physicians notify the hospitalist, specialist or the Family Physician of the patients' need for admission and then allow that individual to decide to either assess the patient immediately, or give orders over the phone, would obviate this difficulty,

Internists frequently will actively resist referrals directed to them

Apparently, internists frequently will actively resist referrals directed to them, and insist that they only accept Most Responsible Physician responsibility for patients assigned to the special care area. As a result, a hospitalist will be asked to assume responsibility for patients with complex or serious medical illness [for example diabetic ketoacidosis] when the ED physician (and the hospitalist) feel the patient would more appropriately be looked after by a specialist.

Some orthopaedic specialists are also reluctant to accept referrals after hours.

The other surgical subspecialties have entered into regional call arrangements for service, with cross coverage arising from a variety of centers. It appears that the surgical subspecialties have a good understanding of the responsibilities associated with call and readily accept requests for consultation from the ED.

Some consultants refuse to see patients in a timely manner, and instead complete their office before responding to ED consultation requests

However, there have been times at which consultants refuse to see patients in a timely manner, and instead complete their office before responding to Emergency Department consultation requests. In addition, when surgeons are in the operating room, there is no assurance that a colleague will have been designated to respond to the Emergency Department in their stead.

Consultants need to respond to requests from the ED and they need to respond in a timely fashion. The Chief of Staff at Cambridge Memorial Hospital should develop a consultant response time policy/ similar to that at Grand River and St Mary's General Hospitals.

There continues to be significant Family Physician involvement in inpatient management, with approximately 25 family doctors continuing to provide inpatient care. It was, however, expressly stated that asking these individuals to accept incremental responsibility would almost certainly result in them relinquishing this activity.

Recommendations:

It is recommended that:

(57) The Chief of Staff at Cambridge Memorial Hospital should develop policies and procedures for designating responsibility for patients in need of admission from the ED.

(58) The Chief of Staff at Cambridge Memorial Hospital should develop a consultant response time policy

12.6 Patient Flow

The performance of the lab and diagnostic imaging in support of the ED are felt to be excellent

The performance of the lab and diagnostic imaging in support of the ED are felt to be excellent. Turnaround times are short. There is a system which ensures that x-rays which are misinterpreted by Emergency Physicians are returned to the department when the discrepancy is noted to make sure that the patient is aware of the correct diagnosis.

As mentioned above, there is no Clinical Decision Unit. Additionally, there are no follow-up clinics for either medicine or surgery. Thus, opportunities to either avoid admissions or shorten length of stay by the use of a rapid follow-up assessment by a surgeon or internist, are lost.

There are some medical directives, care maps and protocols for use by Emergency Physicians. These, however, are focused on the management of a disease entity once the diagnosis has been made, and do not empower nurses to initiate blood work at the time of initial assessment. Conversely, nurses are empowered to order x-rays and perform ECG's if they feel it appropriate. Having the nurses initiate haematologic and biochemical investigations at triage only hastens the process of care. Clearly, they will need to be oriented as to the selective use of such investigations.

Also, there has not been discussion with the Departments of Diagnostic Imaging or Laboratory regarding the development of directives or care plans that ensure that only those investigations which are necessary, and reflect current evidence and best practice, are used by Emergency Physicians in their management of health care conditions.

There is currently no standard process for the management of CTAS level 4 and 5 patients. There is a fast-track nurse assigned on evenings from 1500 to 2300 Friday to Tuesday only, but no standard process for the physician.

A standardized ambulatory stream or alternate patient pathway to cycle through 30 to 45% of Emergency Department visits (CTAS levels 4 and 5, and low level 3's) will significantly decrease the time to see a physician for this group of patients. The area would need to be staffed with a designated nurse, (a Nurse Practitioner or PA,) and physician, and should be set up with two to three beds and five to six chairs, with specific processes and criteria documented.

A process improvement team should be convened to design the change and should include representation from the department manager, nurses, physicians and the nurse practitioner in order to obtain input and commitment from key stakeholders.

The currently existing eye room, fast-track office and two currently designated fast-track rooms may be used to assess patients, and five chairs should also be placed in the hallway. The existing eye room and gynecology room should be switched. A mobile chart rack should be purchased. A mobile computer and wall mounted PACS station in rooms or on a wall in the hallway will also be necessary.

Recommendations:

It is recommended that:

(59) The Cambridge Memorial Hospital Emergency Department Manager should reconfigure the ED fast-track area and supporting care processes.

(60) The Chief of Emergency Medicine, collaboratively with the Chiefs of Diagnostic Imaging and Laboratory at Cambridge Memorial Hospital should develop medical directives.

(61) The Cambridge Memorial Hospital Emergency Department Manager should empower and train nurses to initiate blood work at triage.

13.0 Implementation Costs

The recommendations of this review will directly or indirectly provide for reductions in the operating costs of the hospitals and will provide for substantial improvements in the efficiency, effectiveness and quality of Emergency Department care

Most of the recommendations of this review will have little or no implementation costs, however, they will almost all directly or indirectly provide for reductions in the operating costs of the EDs and the hospitals overall and will provide for substantial improvements in the efficiency, effectiveness and quality of Emergency Department Care. Some recommendations will require increases in either or both operating and capital costs. We are confident however that the potential savings for the hospitals will more than offset their increases in operating costs and are justified for their contribution to the improvements in the effectiveness and quality of patient care. There likely will be costs in restructuring, enhancing and expanding the range of long-term care services in Waterloo that will not be fully offset by the potential reduction in hospital operating costs.

It should be noted that the hospital operating cost savings from reducing the number of patients admitted from the ED and from shortening inpatient lengths of stay will not be realized if the increased capacity is used to increase the number of elective patients treated at the hospitals. This increase in patient volume may be warranted, but it has the potential to more than fully offset any savings.

The following table provides an indication of the potential cost of implementation and the impact on operating costs and quality of patient care of each of the recommendations of this review.

Exhibit 44: Cost and Benefit Implications of Recommendations

Recommendation		Costs		Benefits		Explanation
		Oper'g Costs	One Time	Oper'g Savings	Quality	
-1	Prcesses to identify and follow-up on high risk patients who leave the Emergency Department before completing treatment.				X	
-2	Actions to ensure that no more than 3% of visits leave ED before completing treatment.				X	
-3	Rapid follow-up clinics to be used for next day follow up for ED patients and the management of recently discharged inpatients.	X	?	X	X	One time cost if need to create clinic space
-4	Minimize transfers to EDs and facilitate the prompt return of nursing home patients following care in ED			X	X	
-5	Policies and processes regarding the management of patients referred to the ED by Family Physicians for Specialist care.			X	X	
-6	Physician human resource plan for the region.				X	
-7	Clinical Decision Units	X	X	X	X	Cost to create CDUs; Saving from fewer admits
-8	Policies, processes and practices that will reduce average lengths of stay of inpatients.			X	X	
-9	Capacity in a range of long term care treatment settings appropriate to the needs of the population	X	X	X	X	LTC costs; Savings from fewer ALC days
-10	Ensure and facilitate access to long term care treatment settings appropriate to the needs of potential residents.				X	
-11	Supportive housing services with the financial support of the Ministry of Health and Long Term Care.	X	X	X	X	LTC costs; Savings from fewer ALC days
-12	No top up payments of any kind for coverage of physician clinical services.			X	X	
-13	Eliminate the use of agency physicians in staffing their Emergency Departments			X	X	
-14	Integrated programs operating under a program management structure for all clinical services.				X	
-15	Integrated management positions to support the integration of clinical programs.				X	
-16	Appoint a lay member of the Board to serve on the hospital's Medical Advisory Committee.				X	
-17	GRH/SMH search for a new Chief of Emergency Medicine.				X	
-18	CMH should recruit a new Chief of Emergency Medicine.				X	
-19	Annual, comprehensive performance appraisal of each member of department.				X	
-20	Human resource plan that will ensure appropriate resources for consultation and inpatient management at both sites.			X	X	
-21	Single Department of Diagnostic Imaging to support both hospitals headed by a chief with strong leadership skills.				X	
-22	Single call schedule for the provision of Diagnostic Imaging services at both St. Mary's and Grand River Hospitals.				X	
-23	GRH/SMH common bed management policies and processes to ensure the availability of beds for ED patients needing admission to			X	X	Fewer admitted patients in ED & shorter LOS
-24	Consistent processes for receiving, acknowledging, investigating and responding to patient complaints	X			X	
-25	Paediatric area of the Emergency Department is used only for the care of children and is available 24 hours per day, 7 days per	X			X	

Recommendation		Costs		Benefits		Explanation
		Oper'g Costs	One Time	Oper'g Savings	Quality	
-26	GRH improvements in the ED Patient Tracking System	X	X		X	
-27	GRH explicit employment criteria for Emergency Physicians				X	
-28	GRH should provide for two unit clerks on the day and evening shifts.	X			X	
-29	GRH should decentralize portering to the Emergency Department.				X	
-30	GRH strategies to maximize the use of volunteers in the Emergency Department.				X	
-31	GRH policies to provide for timely and appropriate response to requests for consultation made by Emergency Department staff.				X	
-32	GRH should improve diagnostic imaging turnaround times				X	
-33	GRH should improve laboratory turnaround times.				X	
-34	GRH should provide for drawing of blood samples by Emergency Department nursing staff.			X	X	
-35	GRH should introduce an expanded range of point of care testing in the Emergency Department.	X	X	X	X	
-36	GRH should reduce the time from triage to physician assessment in the fast track area				X	
-37	GRH should move the mental-health seclusion rooms to the intermediate care area		X		X	
-38	GRH/SMH Department of Psychiatry should increase the use of day programming and outpatient options.	X	?	X	X	Program costs; Savings from fewer admits & LOS
-39	GRH/SMH Department of Psychiatry should develop and implement strategies to shorten lengths of stay at GRH.			X	X	
-40	SMGH ED Patient Tracking System.	X	X		X	
-41	SMGH employment criteria for Emergency Physicians				X	
-42	SMGH & CCAC should develop a plan to extend the range of services delivered in people's homes	X		X	X	HC costs; Savings from fewer admits & LOS
-43	SMGH policies to provide for the generation of a request for consultation for all patients at the time that the need is identified			X	X	
-44	SMGH consulting services accept responsibility for and respond to requests for consultation for all referred patients				X	
-45	SMGH full general internal medicine service at the hospital.				X	
-46	SMGH care processes for fast track patients.				X	
-47	SMGH minimize the frequency of admission and the frequency of use of the 23 hour stay unit by day surgery patients.			X	X	
-48	SMGH policies to ensure the timely and efficient flow of admitted patients out of the Emergency Department				X	
-49	SMGH availability and use of same day stress testing for appropriate Emergency Department patients			X	X	Fewer admitted patients
-50	CMH reconfigure the spaces currently occupied by triage nurses and registration personnel		X		X	

Recommendation		Costs		Benefits		Explanation
		Oper'g Costs	One Time	Oper'g Savings	Quality	
-51	CMH Emergency Department Patient Tracking System	X	X		X	
-52	CMH policy and procedures such that emergency physicians are not responsible for admitting patients to the hospital from ED				X	
-53	CMH policies and procedures such that emergency physicians are not responsible for responding to cardiac arrests outside ED				X	
-54	CMH Chief of Emergency Medicine should take responsibility for orienting, mentoring and monitoring MEI physicians.				X	
-55	CMH reassign one porter to support the ED	X			X	
-56	CMH, CCAC and the LHIN should work together to expand the scope of CCAC services	X		X	X	HC costs; Savings from fewer admits & LOS
-57	CMH policies and procedures for designating responsibility for patients in need of admission from the ED.				X	
-58	CMH consultant response time policy				X	
-59	CMH reconfigure the ED fast-track area and supporting care processes.		X		X	
-60	CMH should develop medical directives				X	
-61	CMH should empower and train nurses to initiate blood work at triage			X	X	

Appendix A:

ED Visit Discharge Disposition by CTAS Level

Exhibit A1: 2005/06 ED Visit Discharge Disposition – CTAS Level 1

Disp. Group	Cambridge	Grand River KW	Guelph Gen.	St. Mary's	Grand Total
Admitted	66	50	47	60	223
Died	53	58	58	55	224
Home, No Suppt.	3	7	11		21
Home/Instit., Suppt.	1		2		3
Left After Triage	1				1
Xfer to Ambulatory		1			1
Xfer, Non-Acute				1	1
Xfer, Other Acute	7	22	13	3	45
Grand Total	131	138	131	119	519

Admitted	50.4%	36.2%	35.9%	50.4%	43.0%
Died	40.5%	42.0%	44.3%	46.2%	43.2%
Home, No Suppt.	2.3%	5.1%	8.4%	0.0%	4.0%
Home/Instit., Suppt.	0.8%	0.0%	1.5%	0.0%	0.6%
Left After Triage	0.8%	0.0%	0.0%	0.0%	0.2%
Xfer to Ambulatory	0.0%	0.7%	0.0%	0.0%	0.2%
Xfer, Non-Acute	0.0%	0.0%	0.0%	0.8%	0.2%
Xfer, Other Acute	5.3%	15.9%	9.9%	2.5%	8.7%
Grand Total	100.0%	100.0%	100.0%	100.0%	100.0%

Exhibit A2: 2005/06 ED Visit Discharge Disposition – CTAS Level 2

Disp. Group	Cambridge	Grand River - KW	Guelph Gen.	St. Mary's	Grand Total
Admitted	1,643	3,123	1,806	1,190	7,762
Died	7	7	7	8	29
Home, No Suppt.	2,263	6,596	3,192	2,731	14,782
Home/Instit., Suppt.	56	55	60	131	302
Left After Triage	76	275	59	25	435
Xfer to Ambulatory	33	21	42	14	110
Xfer, Non-Acute	7	36	105	3	151
Xfer, Other Acute	80	214	131	158	583
Grand Total	4,165	10,327	5,402	4,260	24,154

Admitted	39.4%	30.2%	33.4%	27.9%	32.1%
Died	0.2%	0.1%	0.1%	0.2%	0.1%
Home, No Suppt.	54.3%	63.9%	59.1%	64.1%	61.2%
Home/Instit., Suppt.	1.3%	0.5%	1.1%	3.1%	1.3%
Left After Triage	1.8%	2.7%	1.1%	0.6%	1.8%
Xfer to Ambulatory	0.8%	0.2%	0.8%	0.3%	0.5%
Xfer, Non-Acute	0.2%	0.3%	1.9%	0.1%	0.6%
Xfer, Other Acute	1.9%	2.1%	2.4%	3.7%	2.4%
Grand Total	100.0%	100.0%	100.0%	100.0%	100.0%

Exhibit A3: 2005/06 ED Visit Discharge Disposition – CTAS Level 3

Disp. Group	Cambridge	Grand River KW	Guelph Gen.	St. Mary's	Grand Total
Admitted	3,668	3,578	3,347	2,035	12,628
Died	5	3		2	10
Home, No Suppt.	16,615	18,628	15,376	16,561	67,180
Home/Instit., Suppt.	467	255	407	617	1,746
Left After Triage	1,933	2,867	1,131	535	6,466
Xfer to Ambulatory	224	34	201	149	608
Xfer, Non-Acute	35	48	261	13	357
Xfer, Other Acute	99	129	131	443	802
Grand Total	23,046	25,542	20,854	20,355	89,797

Admitted	15.9%	14.0%	16.0%	10.0%	14.1%
Died	0.0%	0.0%	0.0%	0.0%	0.0%
Home, No Suppt.	72.1%	72.9%	73.7%	81.4%	74.8%
Home/Instit., Suppt.	2.0%	1.0%	2.0%	3.0%	1.9%
Left After Triage	8.4%	11.2%	5.4%	2.6%	7.2%
Xfer to Ambulatory	1.0%	0.1%	1.0%	0.7%	0.7%
Xfer, Non-Acute	0.2%	0.2%	1.3%	0.1%	0.4%
Xfer, Other Acute	0.4%	0.5%	0.6%	2.2%	0.9%
Grand Total	100.0%	100.0%	100.0%	100.0%	100.0%

Exhibit A4: 2005/06 ED Visit Discharge Disposition – CTAS Level 4

Disp. Group	Cambridge	Grand River - KW	Guelph Gen.	St. Mary's	Grand Total
Admitted	214	532	354	333	1,433
Died		2			2
Home, No Suppt.	9,139	14,363	12,667	16,228	52,397
Home/Instit., Suppt.	160	166	180	646	1,152
Left After Triage	1,470	2,225	1,951	1,025	6,671
Xfer to Ambulatory	34	10	61	35	140
Xfer, Non-Acute	13	13	37	8	71
Xfer, Other Acute	8	18	12	121	159
Grand Total	11,038	17,329	15,262	18,396	62,025

Admitted	1.9%	3.1%	2.3%	1.8%	2.3%
Died	0.0%	0.0%	0.0%	0.0%	0.0%
Home, No Suppt.	82.8%	82.9%	83.0%	88.2%	84.5%
Home/Instit., Suppt.	1.4%	1.0%	1.2%	3.5%	1.9%
Left After Triage	13.3%	12.8%	12.8%	5.6%	10.8%
Xfer to Ambulatory	0.3%	0.1%	0.4%	0.2%	0.2%
Xfer, Non-Acute	0.1%	0.1%	0.2%	0.0%	0.1%
Xfer, Other Acute	0.1%	0.1%	0.1%	0.7%	0.3%
Grand Total	100.0%	100.0%	100.0%	100.0%	100.0%

Exhibit A5: 2005/06 ED Visit Discharge Disposition – CTAS Level 5

Disp. Group	Cambridge	Grand River - KW	Guelph Gen.	St. Mary's	Grand Total
Admitted	9	19	6	10	44
Died					
Home, No Suppt.	552	1,501	592	1,410	4,055
Home/Instit., Suppt.	9	12	7	101	129
Left After Triage	101	261	155	115	632
Xfer to Ambulatory	4	2	7	11	24
Xfer, Non-Acute	1	1			2
Xfer, Other Acute	2	1		7	10
Grand Total	678	1,797	767	1,654	4,896

Admitted	1.3%	1.1%	0.8%	0.6%	0.9%
Died	0.0%	0.0%	0.0%	0.0%	0.0%
Home, No Suppt.	81.4%	83.5%	77.2%	85.2%	82.8%
Home/Instit., Suppt.	1.3%	0.7%	0.9%	6.1%	2.6%
Left After Triage	14.9%	14.5%	20.2%	7.0%	12.9%
Xfer to Ambulatory	0.6%	0.1%	0.9%	0.7%	0.5%
Xfer, Non-Acute	0.1%	0.1%	0.0%	0.0%	0.0%
Xfer, Other Acute	0.3%	0.1%	0.0%	0.4%	0.2%
Grand Total	100.0%	100.0%	100.0%	100.0%	100.0%

Appendix B:

References

References

1. Original research: Prospective Time Study Derivation of Emergency Physician Workload Predictors. Grant D. Innes, MD, Robert Stenstrom, MD PhD, Eric Grafstein, MD, James M. Christenson, MD – September 2005; 7 (5)

2. Next-Day Care for Emergency Department Users with Non-acute Conditions: A Randomized, Controlled Trial. Donna L. Washington, MD, MPH; Carl D. Stevens, MD, MPH; Paul G. Shekelle, MD, PhD, Philip L. Henneman, MD; Robert H. Brook, MD, ScD. Annals of Internal Medicine: 2002 American College of Physicians-American Society of Internal Medicine (November 21, 2002)

3. Dynamics of Bed use in Accommodating Emergency Admissions: Stochastic Simulation Model. Adrian Bagust, Michael Place, John W. Posnett. BMJ 1999:319:155-8

4. Ontario's Alternate Funding Arrangements for Emergency Departments: the impact on the emergency physician workforce. Michael J. Schull, MD, MsC, Marian Vermeulen, MHSc. ED Administration: March 2005 7 (2)

5. Strategies for Managing a Busy Emergency Department. Samuel G. Campbell, MB BCh*, Douglas E. Sinclair, MD*, for the Canadian Association of Emergency Physicians Flow Management contributors* ED Administration

6. The Costs of Visits to Emergency Departments. Robert M. Williams, MD, Dr. PH. The New England Journal of Medicine-March 7th 1996

7. Concepts: Rapid Process Redesign in a University-Based Emergency Department: Decreasing Waiting time Intervals and Improving Patient Satisfaction. Daniel W. Spaite, MD, Fran Bartholomeaux, RD, MS, John Guisto, MD, Elizabeth Lindberg, MD, Becky Hull, RN, MS, Alicia Eyherabide, RN, MS, Sally Lanyon, RN, Elisabeth A. Criss, RN, Med, Terence D. Valenzuela, MD, MPH, Carol Conroy, PhD, PhD. Annals of Emergency Medicine39-2 February 2002

8. Does the Canadian Emergency Department Triage and Acuity Scale identify non-urgent patients who can be triaged away from the emergency department? Les

Vertesi, MD, MHSc. ED Administration: September 2004; 6 (5)

9. Hospitalism in Ontario: from Crisis Management to Opportunity. Alan Stewart, MD. Ontario Medical Review-July/August 2003

10. Effects of Physician Experience on Costs and Outcomes on an Academic General Medicine Service: Results of a Trial Hospitalists. David Meltzer, MD, PhD, Willard G. Manning, PhD, Jeanette Morrison MD, Manish N. Shah, MD, Lei Jin, MA, Todd Guth, MD, Wendy Levinson, MD. Annals of Internal Medicine 2002:137:866-874

11. Evidence-Based Evaluation of the Hospitalist Model of Care. Franklin A. Michola Jr., MD. Clinical Review-Vol. 7, No 1. JCOM January 2000

12. The Hospitalist Movement 5 Years Later. Robert M. Wachter, MD, Lee Goldman, MD, MPH. JAMA, January 23/30-Vol 287, No. 4

13. The Park Nicollet Experience in Establishing a Hospitalist System. Richard B. Freese, MD. 1999 American College of Physicians-American Society of Internal Medicine

14. Continuous Quality Improvement Reduces Length of Stay for Fast-track Patients in an Emergency Department. Christopher M.B. Fernandes, MD, James M. Christenson, MD, Ann Price, RN. Academic Emergency Medicine; March 1996 VOL 3/NO3

15. Staffing Issues in the ED (Information Packet). American College of Emergency Physicians; Material reviewed and current as of September 2003

16. Intervention to Decrease Emergency Department Crowing: Does it have an Effect on Return Visits and Hospital Readmissions? Sylvia Cardin, PhD, Marc Afilalo, MD, FRCP (C), Eddy Lang, MD, CSPQ, Jean-Paul Collet, MD, PhD, Antoinette Colacone, BSc, CCRA, Chris Tselios, BSc, Jerry Dankoff, MD, CSPQ, Alex Guttman, MD, CSPQ. The Practice of Emergency Medicine/Original Research – Annals of Emergency Medicine 2003:41:173-185

17. Does Sharing Process Differences Reduce Patient Length of Stay in the Emergency Department? Stephen Hoffenberg, MD, Michael B. Hill, MD, Debra Houry, MD,

MPH. Annals of Emergency Medicine – November 2001 38-5

18. An Analysis of Emergency Department Time: Laying the Groundwork for Efficiency Standards. Carolyn H. Smeltzer, EdD, RN, Linda Curtis, RN. QRB 12:380-382, November 1986

19. Timeliness of Care in the Emergency Department. Catherine Cleary Wilbert, RN, BSN. QRB/April 1984 – Vol 10/No 4

20. Outcomes of Referrals to the Emergency Department by Family Physicians. S. Patel and I. Dubinsky, American Journal of Emergency Medicine, Vol. 20, Number 5, May 2002. pp 144-150.

21. Access to Emergency Care-Addressing Systems Issues. Report of the Physician Hospital Care Committee of the OHA, OMA and MOHLTC. August 2006.