



Stroke Distinction Report

Kingston General Hospital

Survey Dates: November 22- 23, 2012



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Stroke Distinction Report

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The results of this stroke distinction survey are documented in the attached report, which was prepared by Accreditation Canada.

This report includes information obtained from the organization. Accreditation Canada relies on the accuracy of this information to conduct the survey and to prepare the report. Any alteration of this report would compromise the integrity of the accreditation process and is strictly prohibited.

While this confidential report is intended for the organization, Accreditation Canada encourages that the information herein be disclosed and promoted, in the interest of transparency, to stakeholders, clients and their community.

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About the Stroke Distinction Report

This report includes the official stroke distinction information based on the evaluation of the organization's stroke services.

The report can be used to communicate the success of stroke services to the public and staff.

Please visit the Organization portal (<https://www3.accreditation-canada.ca/>) for details of findings. The detail on the Organizational Portal will allow the organization, sites, and teams to review the stroke distinction results in detail and use the information for ongoing quality improvement initiatives and to monitor improvements.

Stroke Distinction Decision

Accreditation Canada is very pleased to recognize Kingston General Hospital for earning **Distinction in Stroke Services** for the following site and program: Kingston General Hospital, 76 Stuart Street.

The national standards for Stroke Distinction were developed with input from key content experts and in collaboration with the Canadian Stroke Network. The Accreditation Canada Stroke standards are based on the best available evidence for stroke services, including the Canadian Stroke Strategy Best Practice Recommendations for Stroke Care (2008).

In order to achieve Stroke Services Distinction, you must have at least 75% of criteria rated as “Met” and at least 90% of high-priority criteria rated as “Met”. The following table summarizes your achievement of these thresholds.

| | | Met | Unmet | Total | % |
|----------------------------------|-----------------------------|-----|-------|-------|------|
| Kingston General Hospital | Total # of criteria | 90 | 4 | 94 | 95.7 |
| | # of high priority criteria | 16 | 0 | 16 | 100 |

Evaluator Commentary

The Kingston General Hospital (KGH) stroke program is a leading program in Ontario, and across Canada. They have actively engaged key stakeholders across their region, including EMS, home care, rehabilitation services and other hospitals that exist within the regional boundaries. They are aware of the risk factor profiles within their region and use this data in planning services. The team is aware through their data of the large rural population they serve and the need to provide out-of-hospital services for stroke survivors and their caregivers. One initiative has been the development of the Discharge Link Enhanced Rehabilitation Service with the Community Care Access Centre (CCAC), which addresses these concerns and has enabled the team to strengthen its links with community partners.

Over the past few years the program has become much more cohesive with the addition of a strong champion stroke neurologist, along with the existing program and network directors. There is clear support from within KGH's senior management for the stroke program and it is described as an exemplary program within KGH. A regional stroke advisory committee with representatives from all stakeholder groups has worked passionately to create common goals and objectives, and has been diligent in implementing initiatives to meet these goals and objectives. They closely monitor their successes and have significantly contributed to the overall activities and strong impact of the broader Ontario Stroke Network, in their position as one of the first four stroke programs to be in place. Patient Experience Advisors are active members of their committees, adding a feedback loop which is an important link to improvement of service.

The KGH stroke program is now in a strong position to attract and recruit an additional stroke neurologist. Once this occurs it will also be able to increase outreach to other physicians in the region who are less experienced caring for stroke patients. This would include continued provision of education for primary care physicians in their practice setting and when they are covering shifts in local smaller hospitals. Consideration could also be given to participating in provincial telestroke consultations.

There is an opportunity to increase the program's activity in prevention of stroke through public awareness and prevention programs on a more regular basis, in ongoing collaboration with the Heart and Stroke Foundation of Canada.

Demonstrating Excellence and Innovation

Excellence and innovation are key components of effective stroke services. Accreditation Canada supports excellence and innovation by requiring stroke services to implement projects or initiatives that utilize the latest knowledge, integrate evidence, and align with best practice guidelines.

Below are the results from organization implementation of excellence and innovation in stroke services.

Project Name

Implementing Best Practice Guidelines: Dysphagia Screening for Patients with Acute Stroke Using the STAND (Screening Tool for Acute Neurological Dysphagia)

Description

Implementation of dysphagia screening project for patients with stroke using the Screening Tool for Acute Neurological Dysphagia (STAND) aligns with the Canadian Best Practice Recommendations for Stroke Care: "patients with stroke should have their swallowing ability screened using a valid, simple and reliable tool" (Lindsay et al., 2010, p. 158). The planning stage of the project involved the formation of an interprofessional dysphagia team, determining hospital procedures, developing supporting protocols, marketing and wide communication and preparation for the training. A 2-hour education session and corresponding implementation manual was developed and provided to an interprofessional group of champions. Nursing staff administer the screen and other members of the team function as resources and provide clinical support. All patients with stroke are kept "NPO" until their swallowing ability has been determined. It was felt that training nurses could reduce wait times associated with the initial dysphagia screening by facilitating early and appropriate management of patients with dysphagia. The project has completed its pilot study phase and the program is now sustained and embedded into everyday practice. The stroke patient care order sets and collaborative care plans at Kingston General Hospital contain dysphagia screening utilizing the STAND tool. The validity of using the Screening Tool for Acute Neurological Dysphagia (STAND) was reviewed from original results from Bon Secours St. Mary's Hospital in Richmond Virginia. The validity of using the tool was also reviewed with 33 patients at Kingston General Hospital and results indicated a sensitivity for dysphagia at 92% and specificity at 83%. Evaluation was conducted during the project on the implementation of the STAND tool (e.g., timely administration of the dysphagia screening within 48 hours was met 87.5% of the time; timely referral to the speech-language pathologist of every patient with stroke with a positive (abnormal) screening was achieved 100% of the time; timely referral to the Registered Dietitian was met 100% of the time; procedures in place to ensure communication of dysphagia screening policies to new staff working with the stroke population; procedures in place to ensure continued competency of dysphagia screeners; and screening administered only by individuals who have successfully completed the training and certification was met 100% of the time. Many "other" benefits were recognized in implementation of a standardized dysphagia screening protocol (e.g., increase awareness among both healthcare professionals and administrative team of the prevalence and risks of dysphagia in patients with stroke; increase awareness and understanding of dysphagia and associated risks in patients with stroke and their family; improved patient and family satisfaction and development of dysphagia resource materials for healthcare providers and patients and families. Areas for improvement have also been identified such as the development of a documentation record for the screening tool to ensure quality of the data being abstracted related to the frequency of dysphagia screening. A copy of the evaluation summary, the manual "Implementing Best Practice Guidelines:

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Dysphagia Screening for Patients with Acute Stroke Using the STAND" and associated materials are available electronically and in hard copy format. Reference Lindsay, M. P., Gubitz, G., Bayley, M., Hill, M. D., et al. (2010). Canadian Best Practice Recommendations for Stroke Care. On behalf of the Canadian Stroke Strategy Best Practices and Standards Writing Group. Ottawa, ON: Canadian Stroke Network

Comments

This is an excellent project that is well thought out based on best practice. This was chosen in response to a recognized deficiency in the assessment of stroke patients. The project has been implemented and an early evaluation has demonstrated improvement in compliance. There should be a standardized place on the chart for the documentation of this assessment. A simple way, such as the sticker, should be common to all screeners, be they nurses or speech language pathologists. It is recommended that there be a qualified screener on each shift.

The Stroke Standards

Acute Stroke Services

This part of the report provides information on the delivery of high quality and safe acute stroke services. Specific priority process areas that are evaluated include: clinical leadership, competency, episode of care, and impact on outcomes.

Improvements

Following the on-site visit is the opportunity to address the unresolved criteria. Below are criteria that were rated not met:

| Criterion | Evaluator Comment |
|--|---|
| (2.6) The team uses information from staff performance evaluations to improve acute stroke services, and identify support, training or development needs for the team. | Performance evaluations are not completed on a regular cycle but are recognized as an area for improvement. Separate systems track mandatory educational requirements, but these do not capture all learning activities, and are not linked to goals and objectives for individual employees. The staff educator and best practices lead do conduct informal needs assessments of the staff to direct training priorities based on this feedback; however, it does not seem to be formatted in a formal education plan. Allied health personnel undergo evaluations, but these are not focused on stroke. |
| (3.6) The team uses telehealth to increase access to stroke specialists. | There is a strong cohort of stroke expertise within KGH across all professions. At this time they are not able to function as a telestroke consulting site to support surrounding smaller centres. This is directly related to the human resource constraints with one stroke neurologist on staff. Telemedicine is currently being used for professional education purposes and some stroke rehabilitation activities. The team and KGH senior management is encouraged to continue to build an integrate telestroke utilization into their program. |

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(7.13) The team implements and evaluates a falls prevention strategy specific to stroke clients to minimize the risk of falls in this population.

There is an organization wide falls program in place. While it is recognized by staff we spoke to that all stroke patients are at increased risk for falls, there did not appear to be consistent documentation regarding falls assessment, and the 'stars' that are part of the hospital falls program were absent from the charts reviewed and from the patient bedsides. Although the core staff understand this increased risk, families, staff from other departments and the patients themselves need frequent reminders. Therefore the stroke team is strongly encouraged to increase efforts at highlighting the risk of falls for all patients, posting reminders and cautions, and actively implementing the procedures of the KGH falls program rather than assuming this is clear for everyone.

(8.6) The team formally documents that clients receive education prior to discharge.

There is inconsistent and incomplete documentation of specific educational initiatives with patients and/or family members. Individual staff members are routinely documenting, however it is not always easy to locate and not all team members contribute this information. Patient and family education is a critical component of care. It is clear education is being delivered, and the next step is to put a system in place to communicate those efforts and ensure all relevant topics are addressed prior to discharge. KGH stroke program has already recognized this as an issue and is encouraged to implement strategies to improve practice in documentation of patient and family education.

Competency

The stroke team at KGH is a strong cohesive team, under dynamic leadership from the stroke neurologist, regional program director, KGH leaders and the core positions such as stroke best practices coordinator, educator and stroke specialist case manager. They are known and respected across the continuum within the organization and among external partners. They have developed a wide range of policies, guidelines and supporting documents to communicate what they do and demonstrate overall innovation and knowledge of stroke care excellence. Team members report that the stroke team functions well together. The Canadian Best Practice Recommendations for Stroke Care are integrated throughout their protocols with strong alignment. A process should be put in place to ensure all protocols are updated in line with the cycle of national updates to the stroke best practices to avoid discrepancies over time.

The organization and the regional stroke network support ongoing professional development, both locally and through attendance at provincial and national conferences for the team. There is an opportunity, now that the organization is rolling out a plan for regular performance evaluations, to link these to goals and educational needs of those staff responsible for stroke care in the organization.

The new Head of the Department of Medicine has identified a need to recruit another stroke neurologist to further enhance the stroke program and share the load now falling on the sole incumbent. This would allow for more research activities and a further sharing of the specialized on call responsibilities the present neurologist provides. This is certainly a recommended strategy for protecting and further enhancing the progress seen in stroke care.

Patients have reported meeting many team members within the first couple days of admission. There is a specific orientation program for nurses working on the neurology ward and especially on the stroke unit. The nurse specialist provides ongoing education to the emergency department as well as the ICU. The ICU has a training program on stroke for staff, and the charge nurse makes efforts to assign nurses with neurology experience to stroke patients on the unit. This education is an area that could be enhanced with short-burst in services on stroke (15 minute focused sessions) on a regular basis to increase the knowledge of stroke care with this staff.

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Episode of Care

Hyperacute stroke management in the emergency department (ED) is excellent, and for many years the KGH stroke program has held the distinction of the lowest door-to-needle times in Ontario and among the top 3 performers across Canada for door-to-needle time. The communication between EMS, the ED and the stroke team is extremely well coordinated and efficient. Access to neuroimaging is well organized and contributes to the consistently low tPA door-to-needle times of the program. Communication between the segments of care is very good and facilitates smooth transitions.

Repatriation for those patients not requiring admission to the KGH is governed by a protocol and generally works well. There is, however, a long average wait for a bed after a decision to admit is taken. Some patients stay many hours in the ED. While the ED is a monitored unit, its focus is not the ongoing care of admitted patients. ALC patients in the KGH occupy a high percentage of acute care beds, although the team said that ALC patients rarely block access to the acute stroke unit. An opportunity exists to understand the factors causing this long delay in access to the stroke unit and to improve this important aspect of acute stroke care.

The data shows that a higher percentage of stroke patients are admitted to the acute stroke unit and therefore to the specialized care it provides. The team indicated that 30-day mortality rates and complications have been reduced in concert with this improved access. This trend is encouraging as best practice evidence is that acute stroke units are effective in improving outcomes.

Dysphagia screening continues to be a challenge for the stroke program. The team believes that the screening is being done within 24 hours on the majority of patients. The nurses indicate that this is an expectation of care. However, the documentation of completion of the screening is hard to find. The team's innovation project has been rolled out with timely screening of all stroke patients its objective.

Inpatient care is primarily provided on a six-bed designated acute stroke unit (ASU), with four additional beds located in proximity to the ASU on the general ward. The same staff and level of care is provided to all stroke patients in both these locations. Patients who receive tPA or require close monitoring or IV medications for blood pressure reduction will spend the first hours post ED in an ICU setting. The stroke team has responsibility for stroke patients across all these settings and there is strong consistency, mostly facilitated by the nurse case management specialist and the stroke neurologist.

The stroke unit has one key physiotherapist and one key occupational therapist which is a definite strength and at the same time there is a bit of concern regarding available back-up services if these individuals are absent. Some rotation of other KGH allied health staff may be beneficial to ensure some expertise with coverage. Other allied health staff have neuro expertise and provide coverage for vacation and illness; for example, the neurosurgical PT and OT may provide coverage when stroke team PT and OT are away. Nurses in the step down ICU receive dedicated training in stroke care. It is strongly encouraged to continue to increase education with this staff since many stroke patients spend time on that unit, even for short periods of time. This is a hyper-acute time when the possibility of evolving symptoms and worsening stroke, and worsening outcomes is critical. The education should continue to be similar to what is provided by the stroke case manager in the ED, with some enhanced information regarding the first 24 hours, and also based on the existing well developed stroke care plans for this time frame.

In speaking with patients, they were very complimentary to the quality of the staff and the information they were provided. In relation to patient and family education, a consideration may be to set aside a 30 minute more formal teaching session with each patient around day 3 or 4 and invite family members to attend (giving them appropriate warning).

Documentation of provision of education should be in a particular part of the record. A single record documenting that education has been provided, and is understood by the patients, families and caregivers is recommended.

There appears to be some opportunities to strengthen the discharge planning process. Patients and families reported that it was started a bit late and in some cases could result in delayed discharge if the home is not safely modified in time. Again this teaching can be strengthened in the ICU and part of the day 1 and day 2 care plans more clearly. Families have felt that they do receive good education regarding safety and being able to directly participate in patient care in a safe and helpful way. At the same time, they commented that the family member's emotional and support needs were not always addressed nor inquiries made about their coping, fear and other related issues. There is an opportunity to develop strategies for family support and linkage to peer support groups as well as an opportunity to connect with case managers or social workers as part of the assessment of the stroke patient. The stroke program is encouraged to actively offer emotional support and counselling to caregivers and families as well patients, keeping in mind the real difficulties and risks of depression faced by stroke survivors and their loved ones.

There is a good process in place for patient referrals to inpatient rehabilitation and CCAC, although there are some concerns about the increase in ALC days. The organization is aware of this and closely monitors patient flow for stroke patients. This is an important area to address as KGH builds towards a potential future stroke distinction application for the whole SEO stroke region.

The stroke prevention clinic has a triage process in place to ensure patients discharged from the ED or out in the community are seen within appropriate time frames. It is commendable to see the increased referrals to the prevention clinic from the community, which demonstrates the effectiveness of the primary care outreach initiatives. The Canadian Stroke Best Practices committee has just released updated prevention guidelines and the KGH clinic is encouraged to review these new recommendations and update their materials and care plans and processes to align with the updates. Posters and pocket cards describing the updated triage process and follow-up actions are available and should be distributed to all EDs and prevention clinics in the region.

The organization has a falls prevention strategy. Documentation that the strategy is implemented on admission and reassessed on a regular basis was not found in the charts examined. It is recommended that the organizational plan be implemented with regular staff education and assessment of compliance.

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Decision Support

There is a sophisticated, comprehensive decision support system, providing appropriate and useful information regarding stroke indicators and services. This information is provided to the Board of Directors and Senior Leadership. Designated staff members are dedicated to providing and interpreting this information, which is shared with the staff on a regular basis.

Data to monitor utilization, efficiency and quality of stroke care can be accessed through several data sources at KGH, including CIHI data; internal tracking of ORs, pharmacy, laboratory and diagnostics; and participation in the Ontario Stroke Registry. Annually, data is obtained on stroke care from across the region they serve as leaders through regional data sharing agreements. Statistics Canada and public health data are also reviewed to better understand the risk factors and prevalence of stroke in the region, beyond those patients who present to KGH.

The stroke team is engaged with the decision support department and they meet regularly as part of the stroke data monitoring committee to review key metrics and discuss data quality and reporting issues. Stroke metrics are currently being integrated into the overall KGH Quality Indicator Report which will ensure sustainability of measurement and monitoring for stroke.

All data monitoring activities comply with data security and privacy legislation related to protection of personal health information.

The stroke team and decision support actively review data and act upon it to improve performance. An opportunity for the stroke team is to create mini public reports on performance and share more broadly and regularly with frontline staff, patients and community partners.

Impact on Outcomes

Kingston General Hospital has an active complex performance management system across the organization. The stroke program has identified core performance metrics that align with the hospital Quality Indicator Report, the Accreditation Canada core and optional indicators, and the Canadian Stroke Network core performance indicators. Data is accessed from a variety of sources and summarized in quarterly and semi-annual reports. These are shared with quality teams. It is suggested that more formal mechanisms for sharing data with staff members on a regular basis be implemented as this helps fully engage staff and provide ownership over their ongoing performance.

The stroke committee structure which monitors performance and guides change is widely representative of all the persons and groups involved in stroke care. The inclusion of a Patient Experience Advisor (PEA) is an important link to the assessment of performance and is commended. The PEA indicated that she felt respected, and listened to by the Change Committee, and that she is making a meaningful contribution to stroke care through this committee.

Benchmarking is conducted at multiple levels. Within the organization, they track performance over time, usually quarterly, and metrics being used have action items attached to them in the event that performance falls below expected targets. The stroke program also benchmarks against all other stroke centres in Ontario at a peer level through participation in the Ontario Stroke Registry. There is 10 years of data in this registry to allow tracking of progress over time, using more detailed process indicators above what would be available in CIHI datasets. KGH also participates in the CIHI Stroke Quality Project and collects additional stroke process indicators on a routine basis. Much effort has been made in improving the quality of project 340 data through teaching and coaching of abstractors and work with clinical staff to improve documentation of these key data elements.

Dr. Jin and other neurologists actively participate in ongoing regional and national/international clinical trials. Trainees are encouraged to participate and the stroke neurologist is actively involved. His involvement is limited by his clinical and on call commitments. Recruiting of another stroke neurologist is being considered, which would significantly enhance these opportunities. There are also many local research/CQI projects being undertaken by trainees and by nurses and allied health staff.

Patient feedback is obtained formally through participation in the NRC Picker patient experience surveys conducted for KGH. These can be stratified down to the unit level, but not specifically identified for stroke patients. In addition, there are patient feedback surveys conducted by KIDD 7 and the ED that address stroke patient issues more directly. The Patient Experience Advisor (PEA) also is a wonderful addition to the team to provide ongoing feedback on behalf of patients and families.

The Medicine Program, through its Program Operational and Medical Directors, are at the forefront of a quality improvement enhancement initiative, which is being moved out on to the stroke unit using techniques such as whiteboards. The program's performance, and opportunities for improvement, are shared with the staff on a regular basis.

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The stroke team has demonstrated extensive commitment and capacity to recognizing areas where performance is not ideal, and they actively follow-up with quality improvement initiatives to address those areas, such as the dysphagia screening improvement initiative and the upcoming patient education documentation initiative. Over the past several years they have had ongoing CQI activities in the ED to increase and sustain high rates of tPA administration to eligible patients and low door-to-needle times, and are leaders and mentors to other acute care hospitals for these projects.

Client and Family Education about Stroke

Client, family and caregiver education is an integral part of stroke care. Education is an ongoing and vital part of the recovery process for stroke, which must reach the survivor, family members and caregivers. Education about stroke facilitates better understanding and supports coping and self-management. Skills' training for clients and caregivers reduces depression and perceived burden and improves their quality of life. Accreditation Canada supports excellence by identifying information provided at each phase of acute care, rehabilitation, community reintegration and long-term recovery should be relevant to the client's and the family's changing needs.

Comments:

There are scheduled times for patient and family education sessions. Booklets, pamphlets, and binders of information are available.

Stroke Services Protocols

Implementation of stroke protocols is a key component of excellence in stroke services. Using protocols helps stroke services remain consistent, high quality, and evidence based. Accreditation Canada supports excellence by identifying stroke protocols that are in place to achieve Stroke Distinction.

Comments:

The program is commended for implementing the eleven protocols in acute stroke care. The improvement in swallowing ability assessment certainly reflects the effort to deal with a recognized deficiency in stroke care. It will be important for the team to review these on a regular basis to maintain currency as best practices evolve.

Performance Measures

The following section provides a comparison of the performance measures (indicators) collected for stroke services and the measures collected nationally.

Core Performance Indicator Results

Below are the results from core performance indicators. Overall performance is based on data submitted by the organization for each indicator.

Kingston General Hospital indicators:

Stroke / TIA mortality rates

Purpose and Rationale: In-hospital stroke mortality is a valid outcome measure for effectiveness of hyper-acute and acute stroke services.

Numerator: Number of stroke clients who died while in hospital (ED or inpatient) for an acute stroke event within the first 30 days of hospitalization.

Denominator: Number of all stroke clients who are admitted to the emergency department and/or acute inpatient services.

Threshold: 30 day in hospital all-cause mortality <22% of all stroke/TIA admissions.

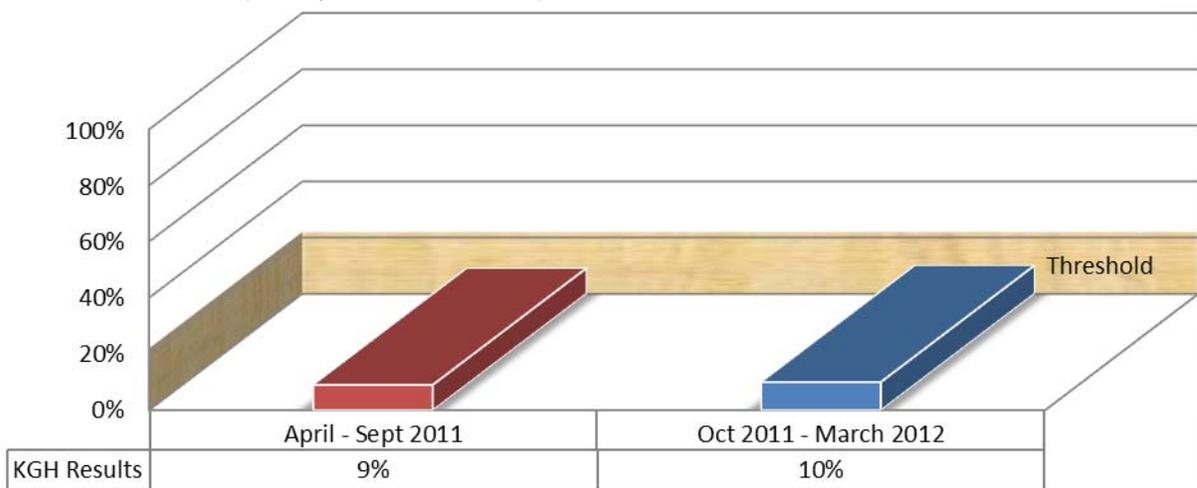


Chart 1

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Proportion of ischemic stroke clients who receive acute thrombolytic therapy (tPA)

Purpose and Rationale: All eligible clients with disabling acute ischemic stroke should be treated with intravenous tissue plasminogen activator (tPA).

Numerator: # of ischemic stroke clients who receive acute intravenous thrombolysis at stroke site.

Denominator: # of all ischemic stroke clients presenting to the stroke site.

Threshold: 7% of all ischemic stroke clients, regardless of time from stroke onset to tPA administration.

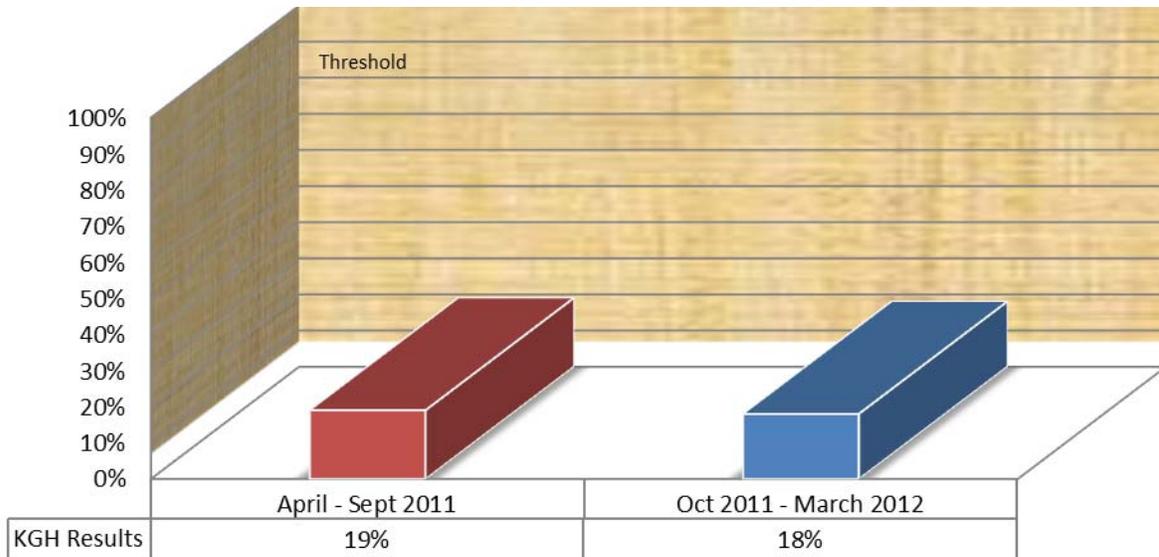


Chart 2

Median time to administration of acute thrombolytic agent

Purpose and Rationale: All eligible clients with disabling acute ischemic stroke should be treated with intravenous tissue plasminogen activator (tPA). Time is brain and tPA should be administered as soon as possible to eligible stroke clients. Canadian Best Practice Recommendations for Stroke Care state that eligible clients should receive intravenous thrombolysis within one hour of arrival to hospital.

Numerator: sum [# minutes from ED arrival (registration) to start of administration of intravenous tPA].

Denominator: # of ischemic stroke clients presenting in ED or inpatient services who receive tPA through an intravenous route.

Threshold: 50% of all tPA clients have door to needle time of <60 minutes.

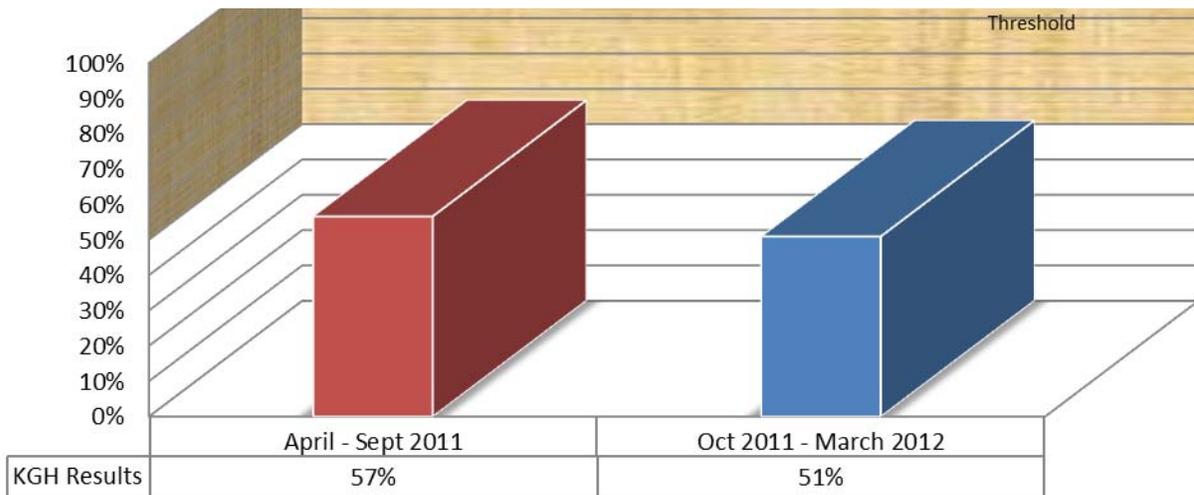


Chart 3

Stroke Distinction Report

Porportion of clients treated on stroke unit

Purpose and Rationale: Evidence shows better outcomes for clients who are treated on a designated stroke unit (defined as being a geographically defined unit with dedicated beds for stroke clients in acute care or inpatient rehabilitation; it has a core interdisciplinary team to formulate a treatment plan and provide care for stroke clients; teams meet regularly to monitor client progress and adjust treatment plans*). This indicator applies to acute inpatient care, inpatient rehabilitation settings, and clients managed on an integrated stroke unit (combines acute management and sub-acute intensive rehabilitation during a single stay). It is important to identify which model is relevant to the setting being monitored.

Numerator: # of stroke clients admitted to hospital and treated in an acute stroke unit, a rehabilitation stroke unit or an integrated stroke unit at any time during hospital stay.

Denominator: total # of stroke clients admitted to a hospital (TIA, ischemic, hemorrhage).

Threshold: Proportion of stroke clients managed on an acute stroke unit or integrated stroke unit for some part of acute inpatient stay $\geq 75\%$.

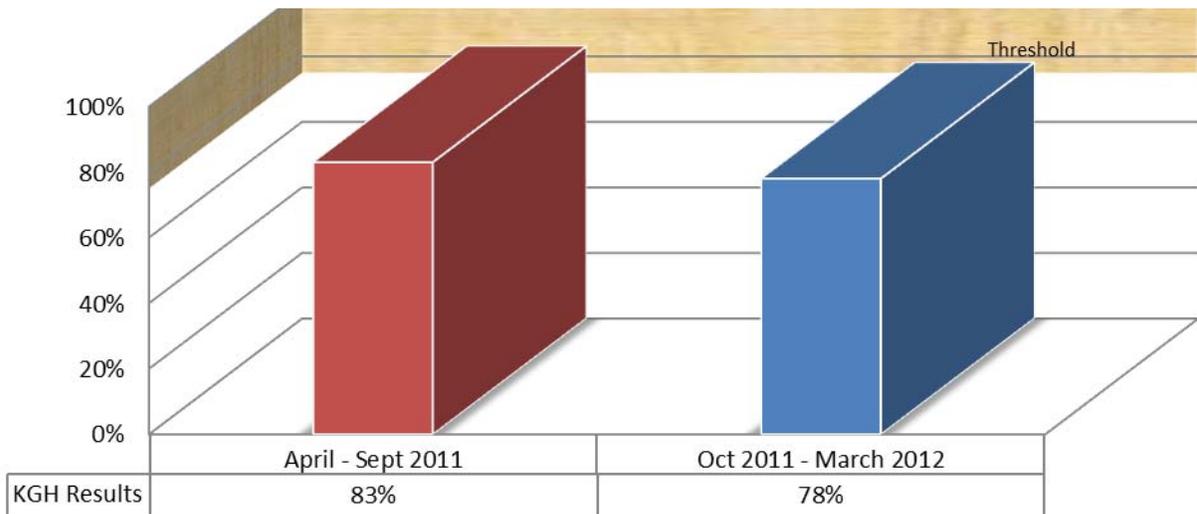


Chart 4

Length of stay in an acute care hospital setting for clients admitted following an acute stroke event

Purpose and Rationale: Length of stay is an important indicator of hospital efficiency and system responsiveness.

Numerator: total number of acute care hospital days for all stroke clients admitted to an acute care setting following an acute stroke event and discharged alive.

Denominator: total # of stroke clients discharged alive from an acute care hospital.

Threshold: Median acute services total length of stay \leq 14 days.

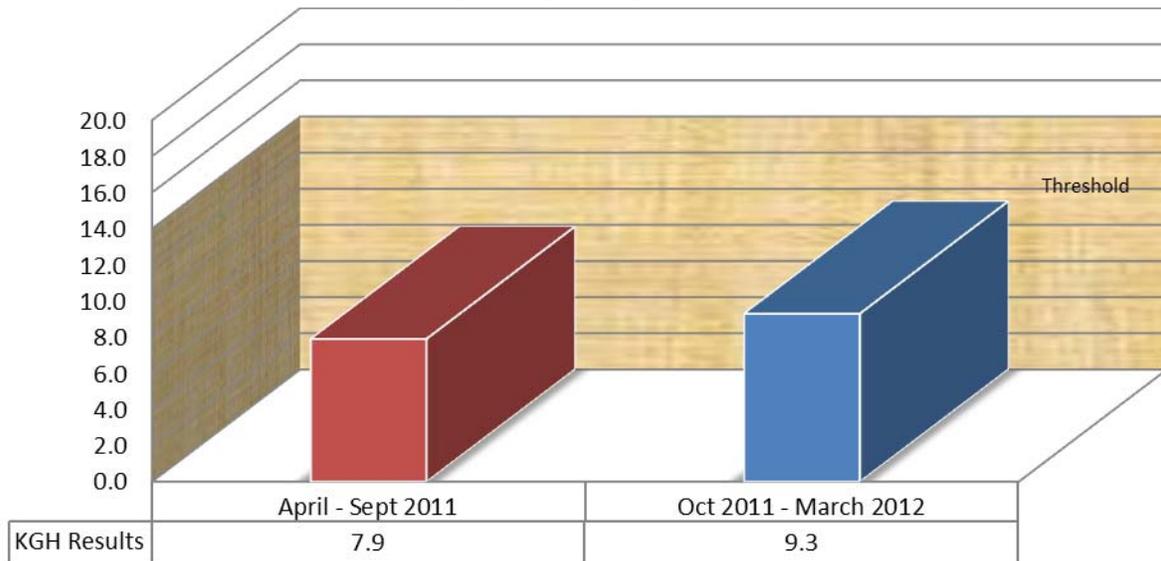


Chart 5

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Readmission to acute care for stroke related causes

Purpose and Rationale: Readmission is an important metric of effectiveness of stroke services.

Numerator: number of acute stroke and TIA clients that are discharged alive that are then readmitted to hospital with a new stroke or TIA diagnosis within 90 days of index acute care discharge.

Denominator: total # of stroke clients discharged alive from the emergency department or inpatient care following an index stroke event.

Threshold: 90 day readmission rate to acute services for stroke related causes less than or equal to 12%.

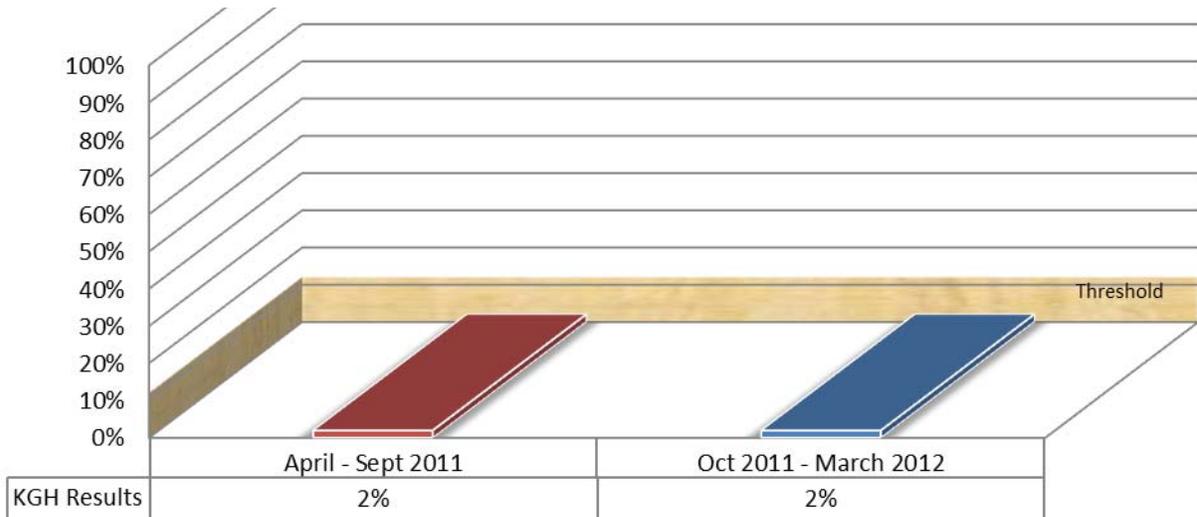


Chart 6

Proportion of acute stroke clients discharged to inpatient rehabilitation

Purpose and Rationale: Evidence supports the importance of stroke rehabilitation being provided in an inpatient setting where rehabilitation is formally coordinated, organized and delivered by a multidisciplinary team with expertise in stroke rehabilitation.

Numerator: # of stroke clients admitted to inpatient rehabilitation following discharge from acute services for a stroke.

Denominator: total # of stroke clients discharged alive from an acute services hospital following an index stroke event.

Threshold: Proportion of stroke clients admitted to inpatient rehabilitation \geq 15% of all stroke patients discharged alive from acute care.

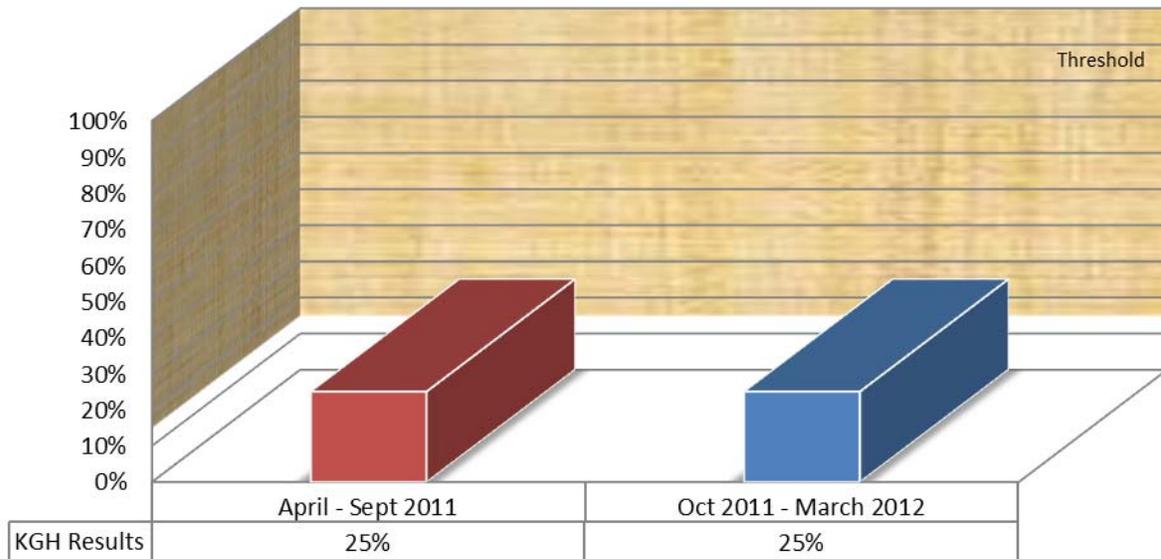


Chart 7

Stroke Distinction Report

Proportion of acute ischemic stroke and TIA clients prescribed antithrombotic therapy

Purpose and Rationale: Best practice evidence has shown that antithrombotic medications reduce the risk of further vascular events following an initial ischemic stroke or transient ischemic attack. This indicator applies to acute care (ED and inpatient) and inpatient rehabilitation.

Numerator: # of ischemic stroke/TIA clients who are discharged from the emergency department or inpatient acute services or inpatient rehabilitation services on antithrombotic therapy.

Denominator: total # of ischemic / TIA stroke clients discharged alive from the ED, acute services or inpatient rehabilitation.

Threshold: Proportion of ischemic stroke clients prescribed antithrombotic before discharge $\geq 90\%$.

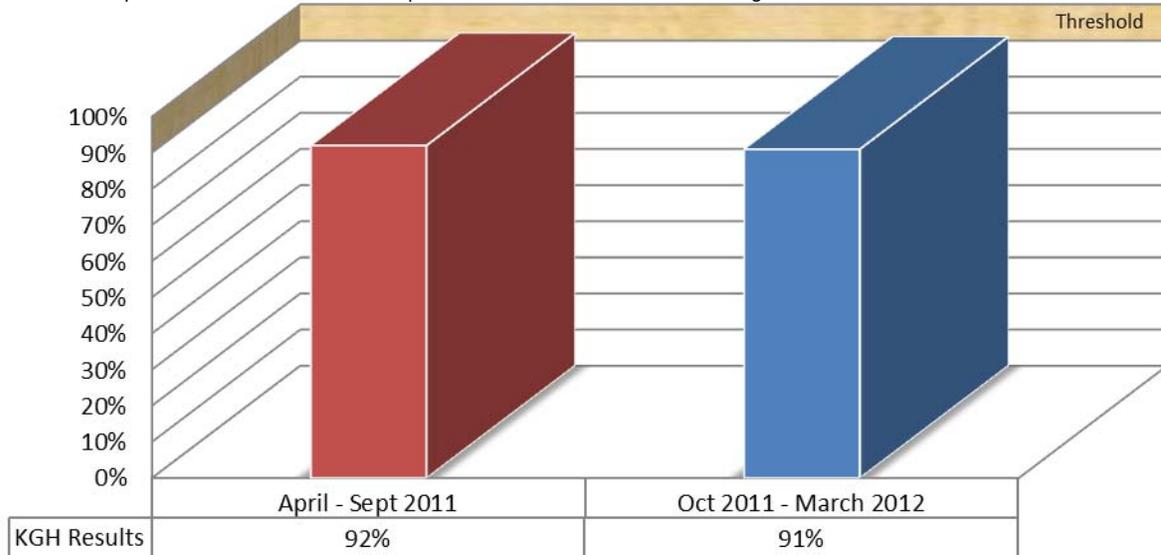


Chart 8

Proportion of clients with initial dysphagia screening at admission

Purpose and Rationale: Difficulties in swallowing following a stroke occurs in more than half of all stroke clients and may lead to aspiration, dehydration and poor nutrition. This indicator applies to acute care (ED and inpatient) and inpatient rehabilitation.

Numerator: # of stroke clients who receive dysphagia screening in the ED, acute inpatient services or in inpatient rehabilitation.

Denominator: total # of stroke clients admitted to ED, acute inpatient services, or inpatient rehabilitation.

Threshold: Proportion of stroke / TIA clients with documentation of screening for dysphagia $\geq 90\%$.

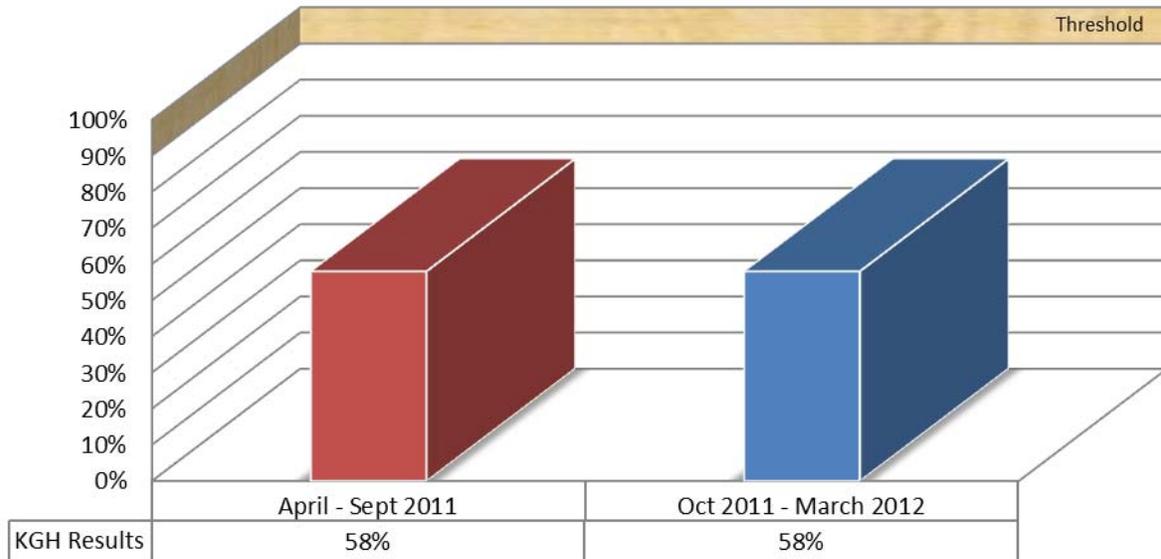


Chart 9

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Next Steps

The organization is encouraged to use the findings in this report to prioritize areas for improvement. This is your opportunity to demonstrate a continued commitment to improving stroke services for clients and families.

As you know, Distinction requires an ongoing commitment to the highest levels of quality service. To maintain Distinction status, it is important to continue submitting performance indicator data in your portal. For additional information on submitting indicator data or on any other aspect of the program, contact your Accreditation Specialist.

Thank you for participating in the Stroke Services Distinction Program.

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