



# BLUEWATER HEALTH

## **Implementing a clustered acute stroke unit at a community hospital improves patient care**

Linda Dykes, BScPT  
Manager, Sarnia Lambton District Stroke Centre

Krista Steeves, BHScPT  
Physiotherapist, Bluewater Health

# Disclosure

---

Conflict of interest – none to declare

# Bluewater Health – Sarnia, Ontario

---



- Large community hospital with 2 sites serving the urban and rural needs of Lambton County ( 126,000 residents)
- Sarnia site, 285 bed facility providing acute, rehab, palliative and continuing care along with surgical, obstetric, pediatric and mental health services.
- Sarnia site hosts the District Stroke Centre and stroke services

# The need to organize stroke care

---

## Stroke Care in 2008

- Stroke patients could be admitted to one of 4 medical units
- Stroke order sets
  - Canadian Neurological Scale
  - Dysphagia Ax and screening
  - AlphaFIM as part of an *Inpatient Rehab Candidacy Screening Tool*
- Multi-disciplinary team
- Weekly patient rounds
- Stroke Nurse – part-time

## Making change happen

- Support from the clinicians, Unit Manager and Program Director
- The *Vision*

## *Challenges*

- **No funds or increased resources**
- **Fluctuating patient volumes**
- Planning for care in a facility that was in the process of being built/renovated and stroke unit care had not been part of the original plans

# Steps along the way...

---

**Stand alone unit – *not an option***

**Clustered unit within medicine unit**

- Plans for unit following move to new facility
- Trials at the existing Mitton Site and ***challenges*** to the process
- The move and implementing plans at the new facility
  - **Challenges – *old* and NEW**
  - The team – holding on to the ***Vision***

**Re-evaluating our plans, processes and outcomes**

- Daily stroke inpatient census – the patients were ***not*** in the *right* place at the *right* time for the *right* care
- Critical Mass - essential to sustaining stroke processes and care

# The turning point...

---

- *If we were to be successful, the program needed to work with/be part of an existing service and benefit both*
  - Neurology – no unit
  - Rehabilitation – did not address acute needs
  - **Telemetry** – *similar focus: vascular management of patient population*
- *What if we were to cluster the stroke patients on the Telemetry unit?*

## ***Overcoming the barriers:***

- 1) Dedicated Stroke Clinician***
- 2) Facilitate patient flow to and from the unit***

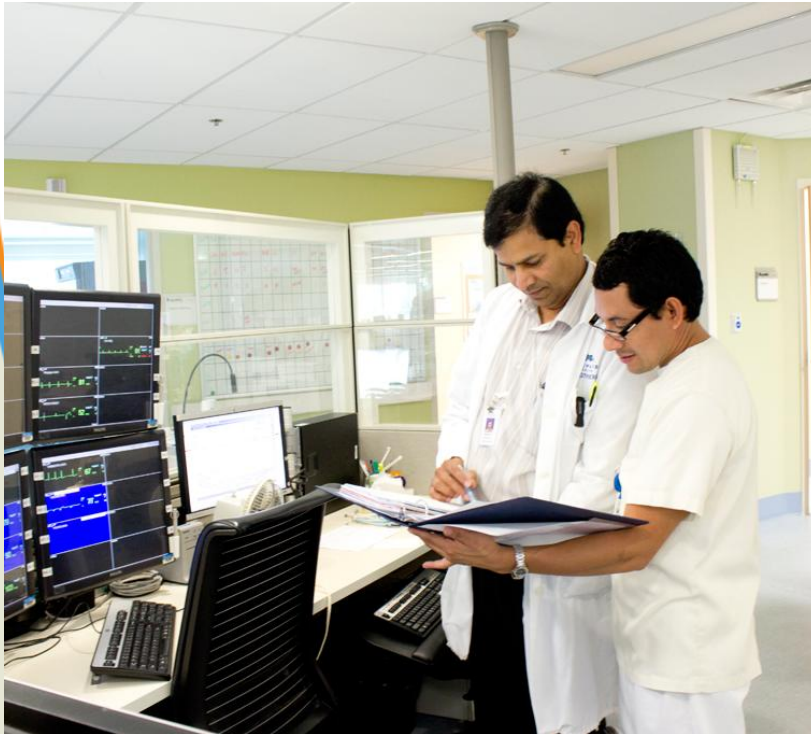
# Welcome to the Acute Stroke Unit

---



# One year of delivering Acute Stroke Unit Care

---



## In-house acute care stroke data

- 83 % of the 231 admissions received ASU care
- 86% of ASU patients were on “stroke protocol”
- In the ED, 10 new AF diagnoses; *an additional 15 new diagnoses made on the ASU*
- Endarterectomy consult – 10; only 3 the previous year

## Discharge destination

- 50% home
- 36% inpatient rehab
- 6.3% complex continuing care
- 3.4% long term care

*Stroke onset to admission to rehab : 6 days (median)*



# Dedicated Stroke Clinician

---



## Clinical Nurse Specialist

- Provides support for stroke programming across the organization (from ER-ASU-Rehab) – the *champion*
- Mentors and supports clinician care practices – the *specialist*
- Facilitates appropriate and timely patient transitions – the *navigator*
- Educates and supports stroke patients and families – the *teacher*

# Interprofessional Team

---



- Initiating care in the ER
- Advocate for care most appropriate to patient's needs
- Shared history and assessment as appropriate
- Team rounds weekdays 8:30 am
- Daily interactions *foster and enhance respect and effective working relationships*

# Acute Stroke Unit within Telemetry – why did it work?

#	Factors	General Medicine Unit	Telemetry Unit
1	Unit size	large, 30 beds	smaller, 20 beds
2	Staffing RN/RPN Days Nights	1 :1 5 patients:1 nurse 7-8 patients: 1 nurse	3:1 5 patients: 1 nurse 5 patients: 1 nurse
3	Interprofessional team	some members vary	more consistency
4	Physician practice	Family practice (hospitalist) led	Internist led
5	District Stroke Centre support	part-time Registered Nurse	full-time Advanced Practice Nurse
6	Transitions	as per hospital processes	<b>facilitated</b> patient flow
7	Cardiac monitoring	no	routine
8	Critical mass	divided within facility challenging organization of care practices	maintained to enable implementation of stroke processes and care

## Comparison of Key Components of an Acute Stroke Unit\*

#	Key Component of ASU – CSS Guide	BWH Status
<b>1</b>	<b>Specialized, geographically defined hospital unit</b>	✓
	i. Dedicated	i. Not exclusive to stroke
	ii. Evidence based protocols	ii. ✓
	iii. Patient admission asap from ER dept.	iii. ✓
	iv. Patients receive acute care and early rehab	iv. ✓
	v. Patient and carer education	v. ✓
<b>2</b>	<b>Core interprofessional team</b>	✓
	i. Dedicated, stroke interest/advanced training	<i>i. Consistent, not exclusive**</i>
	ii. Assess and plan within 24-48 hrs	ii. ✓
	iii. Utilize standardized, valid tools	iii. ✓
	iv. Meet once/week	iv. ✓ <i>rounds 5 days/week</i>
	v. Shared decision making/goal setting	v. ✓

\* Adapted from Canadian Stroke Strategy Guide to the Implementation of Stroke Unit Care 2009, page 8

\*\* *Dedicated Stroke Clinician*

# Successes

---



- 1) Improved communication and team collaboration
- 2) Patients and families acknowledge appreciation for the care they have received
- 3) Improved stroke care and the consistency of best practice - decreasing the variation in practice
- 4) Greater identification of stroke etiology and risk reduction practices
- 5) Increasing stroke knowledge and skill amongst our clinicians
- 6) Improved patient flow across the organization

## Lessons learned...

---

- Organizing stroke care *really* does improve outcomes ... as does *each step along the way*
- Critical mass – 200 may be “on the bubble”
- Routine cardiac monitoring on the unit supports identification of paroxysmal atrial fibrillation and provides the opportunity for treatment intervention
- **Dedicated stroke clinician/champion/navigator** has been vital to our success, supporting the care, team, processes and transitions
- Patient flow and transitions are enhanced with excellent communication - *trust and respect amongst clinical team members are key to the communicating well*

## Moving forward – year 2, 3...

---



- 1) Refine processes
- 2) Increase utilization of stroke care practices
- 3) Enhance clinician skill and expertise
- 4) Monitor performance

***Equitable access to ASU care for all Lambton County residents***

## Summary - final thoughts

---

- It is possible to implement an *effective* clustered acute stroke unit within a community hospital
- It can be done in a fiscally challenging healthcare environment - processes and care can be reorganized to be cost neutral to the organization
- A clustered care model in a telemetry unit can improve processes and patient outcomes

*- You cannot attain what you do not pursue -*



# Thoughts, questions...

---



Email: [ldykes@bluewaterhealth.ca](mailto:ldykes@bluewaterhealth.ca)