Piloting an Early Supported Discharge Model in Huron and Perth Counties for Stroke Survivors

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Objectives

1. Describe the Early Supported Discharge model of care.
2. Identify key elements to establish an Early Supported Discharge approach.
3. Discuss the challenges and benefits of an Early Supported Discharge model.

What is Early Supported Discharge?

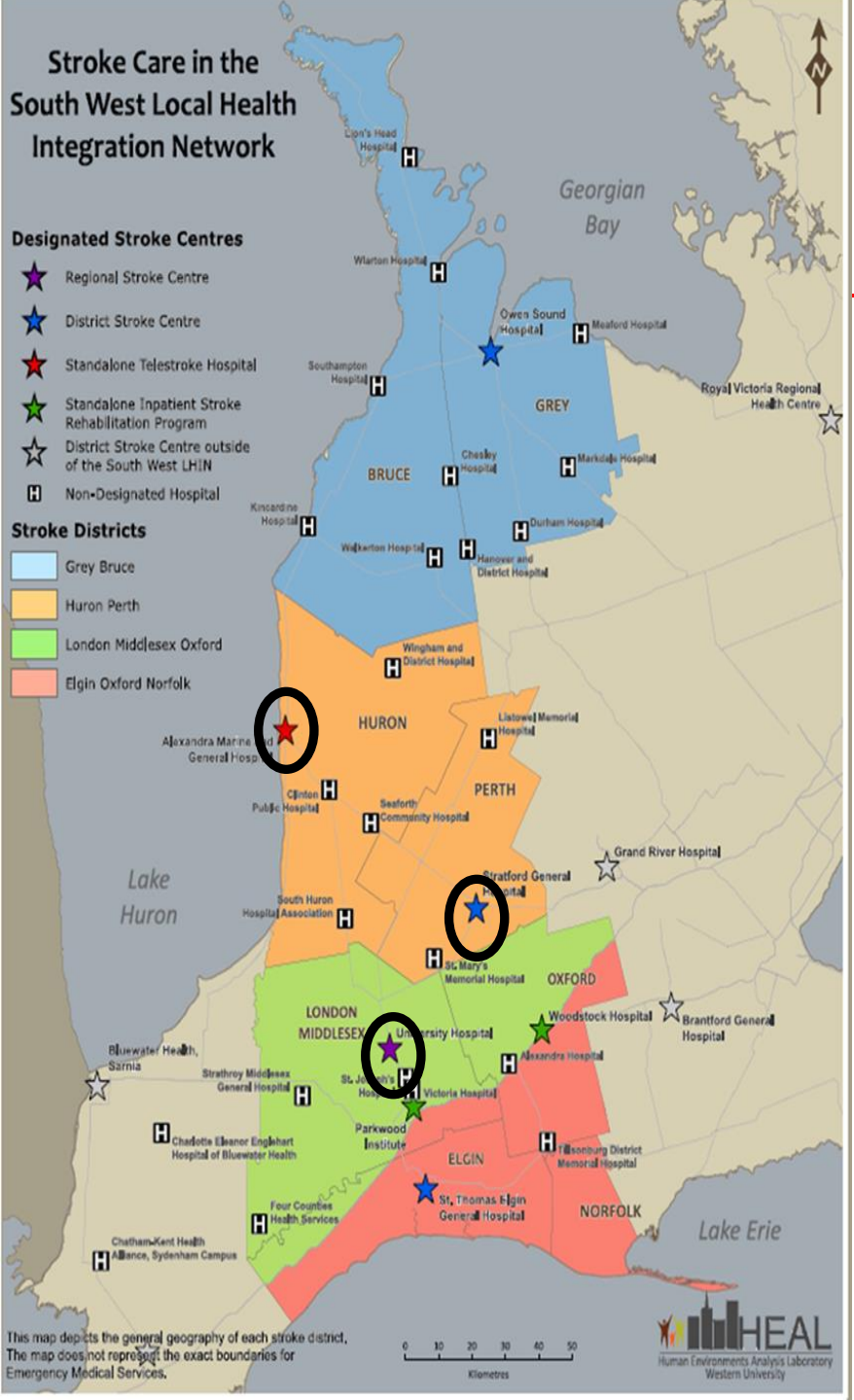
- Time-limited rehabilitative care in the community
- Designed to accelerate the transition from hospital to home, alternative to a complete course of inpatient rehabilitation
- Delivered by a well-resourced, specialized, interprofessional team
- 5 days per week, same level of intensity as in the inpatient setting
- Most suitable for mild to moderate stroke survivors who are medically stable and have required resources and support to manage safely at home

Health Quality Ontario. (2015). Quality-based procedures: clinical handbook for stroke. http://health.gov.on.ca/en/pro/programs/ecfa/docs/qbp_stroke.pdf

What are the Benefits?

- Canadian Best Practice Recommendations for Stroke Care
- Health Quality Ontario's *Quality Based Procedures: Clinical Handbook for Stroke (Acute and Post-Acute)*
  - ✓ reduce adverse events
  - ✓ improve patients' activities of daily living
  - ✓ improve patient satisfaction scores
  - ✓ reduce hospital length of stay and costs

Heart and Stroke Foundation (2016). Canadian stroke best practice recommendations. http://www.strokebestpractices.ca
Health Quality Ontario. (2015). Quality-based procedures: clinical handbook for stroke. http://health.gov.on.ca/en/pro/programs/ecfa/docs/qbp_stroke.pdf
Langhorne & Baylan (2017) Early supported discharge services for people with acute stroke (Review) Cochrane Library. https://www.cochrane.org/CD000443/STROKE_services-reducing-duration-hospital-care-people-acute-stroke



Stroke Care
in Huron and Perth Counties

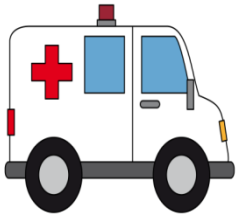
Bypass non designated hospitals to most appropriate designated stroke centre for hyperacute care ★ ★ ★

Receive acute, and if needed, rehab care on integrated Stroke Unit at Huron Perth Healthcare Alliance Stratford General Hospital ★

Receive community rehab via stroke-specific interprofessional team

COMMUNITY Stroke Rehabilitation TEAM

ESD Program
in Huron and Perth Counties



Hyperacute care

Acute care

Early Supported Discharge

COMMUNITY Stroke Rehabilitation TEAM

Inpatient Rehabilitation

Not every stroke survivor requires CSRT post-ESD, some are discharged from ESD with community supports

ESD Program Details

Acute ESD patients

- 5 business days of daily therapy

Rehab ESD patients

- 10 business days of daily therapy

Timeline Targets

- Within 24 hrs: Rapid Response Nurse
- Within 48 hrs: First Therapy visit

ESD Provider	Week 1	Week 2
Rapid Response Nurse	1 (1 hr) visit	0
Physiotherapist	3 (1 hr) visits	2 (1 hr) visits
Occupational Therapist	3 (1 hr) visits	2 (1 hr) visits
Speech Language Pathologist	3 (1 hr) visits	2 (1 hr) visits
Rehabilitation Therapist	2 (2.5 hr) visits	3 (2.5 hr) visits
TOTAL TREATMENT TIME	**15 hrs**	**13.5 hrs**

What about Recreation Therapist and Social Work?

Integral member of CSRT and consulted as needed during ESD

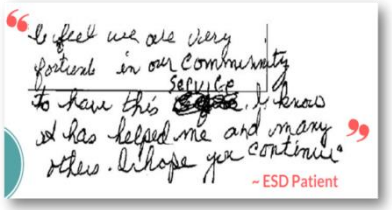
Evaluation

- Patients enrolled in program: 56
- Percent of discharged patients referred to ESD
  - Overall: 49% Acute: 39% Rehab: 58%
- Services required:

ESD Provider	Expected % of patients	Actual % of patients
Rapid Response Nurse	100%	100%
Physiotherapist	100 %	75%
Occupational Therapist	100%	73%
Speech Language Pathologist	50%	46%
Rehabilitation Therapist	100%	86%
Social Worker	?	32%
Recreation Therapist	?	18%

Patient Experience

- **Satisfaction surveys**
  - 100% Strongly Agree/Agree: Would you recommend this team to another family member or friend needing this type of service?



- **Patient/Caregiver Interviews**
- **Themes**
  - **Benefits of receiving intensive therapy in home vs. hospital**
    - Family and friend support
    - Pets
    - Comfort
    - Independence and privacy
    - Customized home-based goals

"And I got to be with my dog, my sidekick. I missed him so much in hospital."

- ESD patient

Patient Experience

- **Themes**
  - **Supporting transitions between hospital and home**
    - Fostering hope
    - Continuity of care
  - **Critical component of ESD team**
    - Communication

"There needs to be a sign in the hospital: Stay Strong"
– ESD patient

I like that we had one team – select team members. They were our people – that consistency, we didn't have to start over when new people came in. They all talked. If he struggled the day before with something, they knew the next day coming in."
- ESD caregiver

Patient Outcomes

- At time of ESD discharge:

Outcome measure	Acute cohort median (n)	Rehab cohort median (n)	Descriptor
RNLI	19.0 (12)	16.5 (30)	0-22: greater community reintegration
PHQ 9	2.0 (12)	4.0 (29)	0-4: minimal depression
Zarit	8.0 (6)	15.5 (19)	0-20: little to no burden

Patient Outcomes

- Functional improvement :

Cohort (n)	FIM efficiency (median)
Comparing pre-pilot and pilot FIM efficiency	
Pre-pilot: rehab inpt (8)	0.84
Pilot: rehab inpt + ESD (26)	1.01
ESD FIM efficiency breakdown over stroke journey	
ESD rehab inpt (30)	1.05
ESD community (30)	0.74

System Outcomes

Challenging to isolate ESD impact on system outcomes

- **Volumes**
- **QI initiatives**

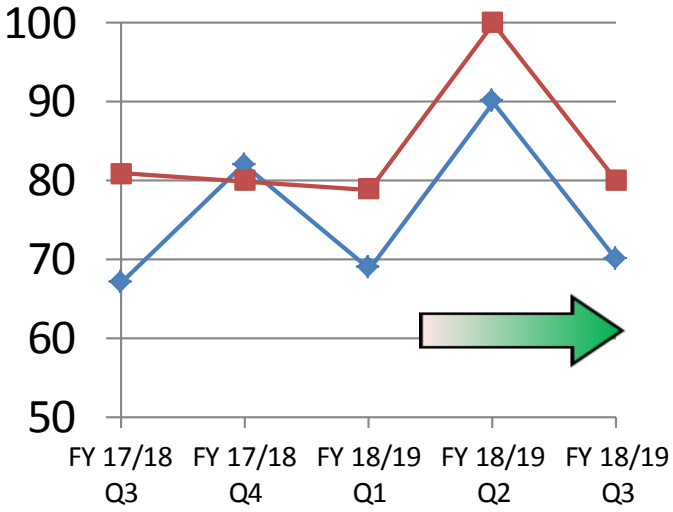
ESD ramp up

- FY 18-19 Q1

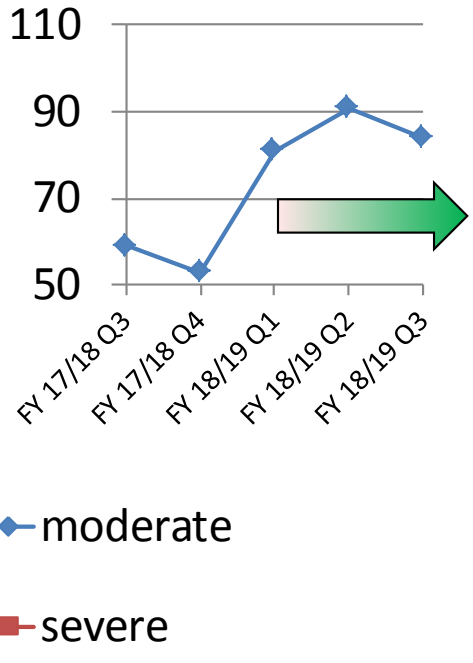
ESD implementation

- FY 18-19 Q2-4

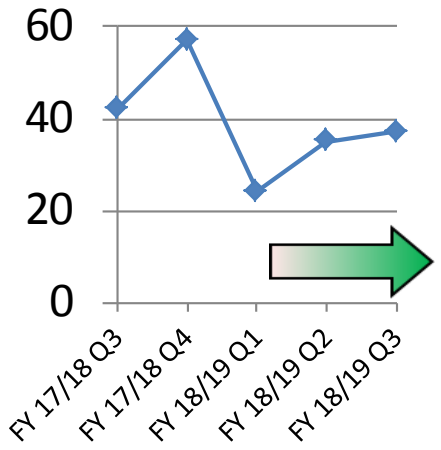
% Achieving Target ALOS on inpt rehab



% stroke/TIA treated on an acute stroke unit



% Acute LOS Stay in ALC Status



LOS Savings

- Comparison to pre-pilot cohort and historical practices
- Least potential for LOS savings: acute
- Greatest potential for LOS savings: rehab (moderate severity)

Cohort	ESD inpatient LOS median (n)	Mean LOS savings (n)	
		Pre-pilot	Historical practices**
Acute	7.0 (22)	**-0.8** (7)	N/A
Rehab	25.0 (34)*	**9.9** (10)***	**6.3** (106)

* Includes both acute and rehab LOS
**2017/18 Inpatient moderate and severe rehab LOS
***Assumes hospital days saved are in rehab

Cost Impact for Rehab

Cost type	Cost per patient
Inpatient rehab cost avoidance	$7, 910*
ESD (total program spend)	$3, 661
ESD (direct and indirect care)	$2, 444
Potential rehab cost avoidance	**$4, 249 – $5,466**

*based on 9.9 day rehab LOS savings

- Overhead costs could be reduced in scaled model
- Rural context: high travel indirect costs
- No true savings, but anticipate:
  - Improved patient experience/outcomes
  - Efficiencies from supporting access/flow

Key Elements

- Inpatient Designated Lead
- Streamline processes
  - Rounds review
  - ESD criteria
  - Patient information
  - Estimated Date of Discharge
  - Referral form
  - Communication process between inpatient and community team
  - Intake, therapy schedule and binder
  - PODs

Key Elements

- Build in continuity wherever possible
  - Shared staffing between teams, attendance at rounds and discharge planning meetings, completion of intake prior to discharge

"They treated me so well in hospital. I didn't want to go home and not know for sure what therapist was coming in. I found out 3 days before my discharge that my physiotherapist from the hospital would be seeing me in the home – that made a big difference in me wanting to go home." *- ESD patient*

"It would have been nice from the community team to come to the discharge planning meeting so that we can make the linkage and understand what to expect when we went home. They are two separate teams, but working together." *- ESD caregiver*

Key Elements

- Anticipate significant amount of indirect time for community team
  - Travel, prep for therapy visits, communication with team members
- Ensure flexibility in community team for scheduling

"The scheduling part is difficult for the team members, especially when discharge dates change or when we receive late notice."

- ESD Staff member

Lessons Learned

- Culture change
  - Inpatient staff - ESD as an extension of inpatient rehab
  - Community staff – one team, 2 different care plans
- Importance of hope
  - Peer support program
  - Pet therapy program
  - Off-unit passes
  - Day and weekend passes
  - Mood support

"The routine was beneficial. It was like he was still in hospital because a similar routine of getting up in the morning, getting dressed, ready for therapy. It was really good. It was busy and that was okay. We were extremely fortunate to have this program." *– ESD caregiver*

"It [Peer support] provided you with hope. You saw them walking in and you saw that they were part of the community again. It was uplifting" *– ESD patient*

Lessons Learned

- Intensity of ESD services - one size does not fit all
- HR FTE complements
- Data collection and retrieval
- Isolating ESD direct impact
- Downstream impacts

"Some days, I thought it was crowded – you really didn't get a break. Not necessarily a bad thing, but it was tiring. But, they listened to you when you were tired and would leave you with homework to do."

- ESD patient

Next Steps

- Community Stroke Rehab Team model re-evaluation
- Ministry of Health and Long-Term Care
- South West LHIN
- Huron Perth Healthcare Alliance

Acknowledgements

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Questions?

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