Nurse Led Outreach to Long Term Care Homes

Dr David Ryan, (RGP) , M.J. McNally (TWH), C.Stumpo (TEGH), B.Willits/S.Woolard (HRRH/NYGH),
P.Rosanno/N.Fletcher (YCH/MSH) & S.Mierdahl (Southlake)

Regional Geriatric Program of Toronto
Affiliated with the University of Toronto

Transitions, emergency department visits, and hospitalizations can be dangerous for frail seniors of long term care homes (LTCH).

To illustrate frequency consider that TCLHIN EDs see more than 1500 long term care residents each quarter:

- 25% are for “less urgent” or “not urgent” triage levels
- 50% are for “urgent” triage levels
- 25% are for “resuscitative” or “emergent” triage levels

Eighteen percent of residents are transported at high levels of acuity within 4 weeks of their death and often on several occasions.

Sometimes residents are transported in order to the emergency department to gain access to services such as blood transfusion, interventional radiology, and videofluoroscopy: services that would otherwise be provided in an ambulatory care setting.

As many as 53% of transported residents are admitted to hospital with complex conditions requiring treatments that LTCH staff do not see often enough to maintain certification (eg PICC Line)

Nurse led outreach teams have been created to help manage these issues and the RGP is helping to coordinate six such teams in the TCLHIN and CLHIN whose goals are:

1) Improve safety and quality of life of LTCH residents by bringing emergency nursing service to the home as an alternative to transfer
2) Build capacity and confidence of LTCH staff, residents, and families to manage acute changes of condition and prevent emergencies
3) Help LTCH staff manage complex conditions that might otherwise require hospitalization or lead to alternate level of care (ALC) status
4) Reduce hospital length of stay for residents who can be returned or discharged to a LTCH term care home with outreach team support.

To achieve these goals Nurse Led Outreach Teams have adopted the following basic common service model:

Capacity Building and Prevention	Emergency Transport Avoidance	Planned Ambulatory Access and Rapid ED Engagement
• Identify acute change of resident condition • Supporting end of life care and the use of advance directives • Participate in rounds • Supporting attending physicians • Building confidence on complex procedures • Building partnerships to meet resident needs in such areas as IV management and tracheostomy • Facilitate hospital-LTCH patriation	• Rapid face to face emergency nursing • Telephone coaching • Tele-consult during outbreaks	• Develop opportunities for access to clinics (eg. interventional radiology, video fluoroscopy, transfusion) • Linkage with Geriatric Emergency Management (GEM) nurses • Facilitate information exchange • Facilitate EMS offloading protocols

For more information contact david.ryan@sunnybrook.ca

The Stepped Wedge Service Deployment and Evaluation Framework uses EMS transport data to examine service impact. Blocks of LTCHs are brought on service systematically. The framework allows several forms of comparison and strong baseline data. The following table reflects the impact of one team. The shaded cells indicate quarters when service was provided.

Service Block of LTCHs	CTAS	Q4 Jan to Mar 2008	Q1 Apr to Jun 2008	Q2 Jul to Sept 2008	Q3 Oct to Dec 2008	Q4 Jan to Mar 2009	Q1 Apr to Jun 2009	Q2 Jul to Sept 2009	Q3 Oct to Dec 2009	Q4 Jan to Mar 2010	Q1 Apr to Jun 2010	Q2 Jul to Sept 2010
6 (Beds 633)	All	151	143	123	161	172	131	124	137	158	152	171
	1/2	47	33	32	33	44	33	25	30	45	33	43
	3	83	86	61	91	92	79	77	84	92	85	96
	4/5	21	24	30	37	36	19	21	23	21	34	32
5 (Beds 267)	All	109	110	113	88	121	108	145	122	113	114	152
	1/2	17	27	26	25	28	25	24	29	23	31	33
	3	69	65	66	52	78	63	91	76	74	77	99
	4/5	23	18	21	11	15	20	30	17	16	6	20
4 (Beds 391)	All									85	74	77
	1/2									32	27	18
	3									45	42	50
	4/5									8	5	9
3 (Beds 518)	All	We have left these cells black so that the chart is easier to look at							96	81	89	88
	1/2								23	17	18	36
	3								63	46	47	39
	4/5								10	18	24	13
2 (Beds 585)	All							146	145	155	152	164
	1/2							19	33	30	32	49
	3							93	83	98	93	88
	4/5							34	29	27	27	27
1 (Beds 1010)	All	383	356	334	326	345	339	325	301	290	299	292
	1/2	99	93	74	74	83	75	80	82	85	87	76
	3	226	195	201	190	202	208	178	178	165	171	177
	4/5	58	68	59	58	60	56	67	41	40	41	39

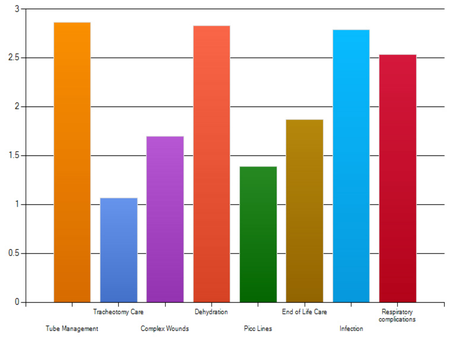
Using this teams wedge data we compared differences in EMS transports, by CTAS, between quarters just prior to service and Q2 1020/11 for 36 on-service homes.

	IMMEDIATE PRE-SERVICE QUARTER	QUARTER 2 2010 – 2011	CHANGE IN TRANSPORT FREQUENCY
ALL CTAS	1570	1425	-145
CTAS 1/2	328	324	-4
CTAS 3	913	892	-21
CTAS 4/5	329	209	-120

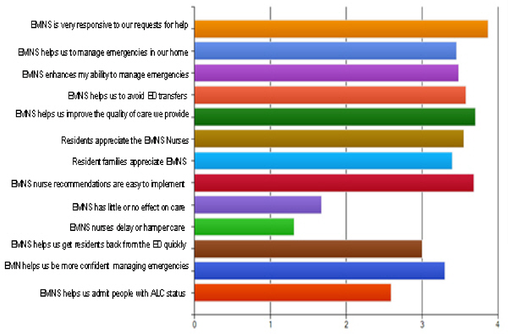
Outreach nurses provide their activity data and estimations of avoidance of imminent transfers. This table shows Q2 data for three teams.

Q2 ACTUALS	TEAM 1	TEAM 2	TEAM 3	TOTAL
Patient encounters (includes follow-ups)	618	613	681	1912
Encounters that were imminent transports	215	239	282	736
Estimated averted transports	202	189	193	584
Percent of imminent transports averted	94%	79%	68%	79%

LTCH participants ratings of outreach service helpfulness in 8 clinical areas.

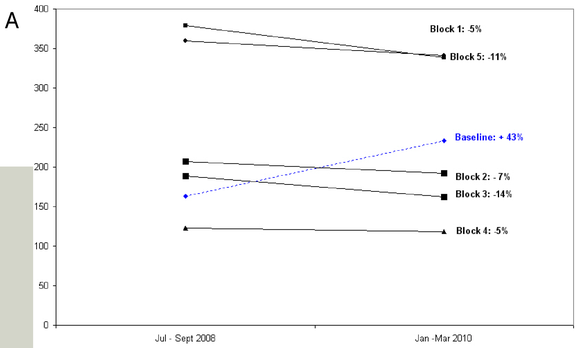


A summary of EMNS stakeholder feedback ratings

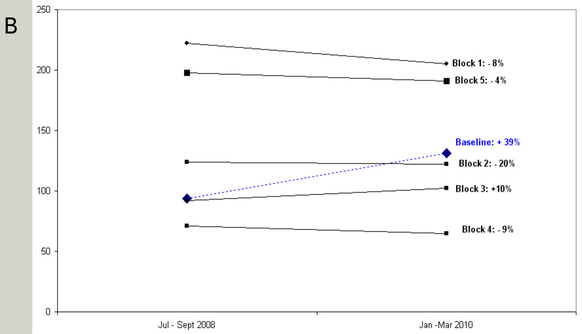


Outcomes can also be seen in the following graphs comparing compare EMS transport frequencies pre-service (Q2 08/09) and on-service (Q4 09/10). Graph A= All CTAS, B = CTAS 3 & C = CTAS 4/5. (‘Block’ indicates a set of LTCHs)

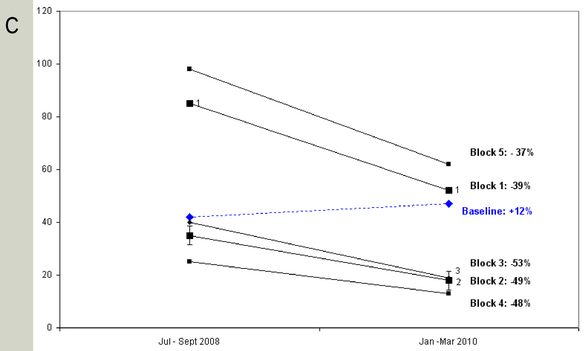
A



B



C



SUMMARY: The RGP has has helped develop this service in the TCLHIN, CLHIN, CELHIN and NELHIN. Each adapts to its own context but a common service model has emerged. Variously named (eg Emergency Mobile Nursing in TCLHIN, Nurse Led Outreach in CLHIN), outcomes seem consistently positive and highly valued. ED transports are averted, complex patients can be returned to the LTCH, patient care and safety is improved, and early cost estimates suggest significant savings. Emerging innovations include partnerships with EMS attend & treat initiatives, developments in end-of-life/palliative care and facilitated access to ambulatory services. We recommend this service to all LHINs