South East Toronto Family Health Team

VIRTUAL WARD PROGRAM
Improving Transitions in Care

In partnership with:
- Toronto East General Hospital (TEGH)
- Toronto Central Community Care Access Centre (CCAC)
- Ontario Telemedicine Network (OTN)

A leading academic family health team that improves the health of our community

Ontario

Excellent Care for All

Finally…

The Patient is at the centre of the health care system.

Care must be organized around the patient to support his or her health.

But:

Is our current system set up to foster **collaboration** and seamless **communication** between the various sectors that are involved in a patient's care?

Virtual Wards across the ocean and across the country

Virtual wards use the systems, staffing, and daily routine of a hospital ward to deliver preventive care to patients in their own homes.

(G. Lewis, M.D., Predictive Modeling in Action: How 'Virtual Wards' Help High-Risk Patients Receive Hospital Care at Home, Aug 2010 Issues in International Health Policies)

- Croydon, United Kingdom - Virtual wards are based in primary care, with each virtual ward being permanently linked to a small group of GP practices

(Croydon = population of 340,000 with 10 Virtual Wards, capacity 100 patients per ward)

- DefiSante, Quebec – identify high end users right in the ER, targeted multidisciplinary interventions lead by a 'community matron' after discharge, strong involvement of community partners

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Cost of readmissions

- CIHI, Discharge Abstract Database FY 2010:
  - TC LHIN hospital average: 16.2% of patients are readmitted again within 30 days after discharge
  - Toronto East General Hospital: 19.6% readmission rate

- Average cost per readmission is $11,214

- A 33% reduction in 90-day readmissions translates into health care savings of $879,838 to $1,173,117

(Dr I. Dhalla, St Micheal's Hospital Central LHIN Virtual Ward)

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SETFHT Partners in Care

- **Toronto East General Hospital**
  - Medical patients admitted to TEGH are identified as high risk by hospital case manager daily based on LACE score
  - If patient does not have a family doctor -> referral to SETFHT Virtual Ward

- **Toronto Central Community Care Access Centre**
  - Automatic referral to CCAC for high risk patients, and CCAC ensures visit at home within 3 days after discharge
  - SETFHT/TEGH will (hopefully) have access to CCAC portal to gain information about what is happening at the patient's home after discharge

- **Ontario Telemedicine Network**
  - Patients may also receive Ontario Telemedicine Network (OTN) Telehomecare equipment for remote monitoring of vital signs

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Virtual Ward: SETFHT-TEGH Goals

- Collaboration between Family Health Team and Community Hospital to provide population at high risk for re-admissions with improved follow-up care after discharge

- Admit these patients to a Virtual Ward in order to improve the transition back home from hospital and reduce avoidable readmissions

- Identify and assist a growing population of unattached patients who do not have access to primary care and thus are at increased risk for hospital re-admissions
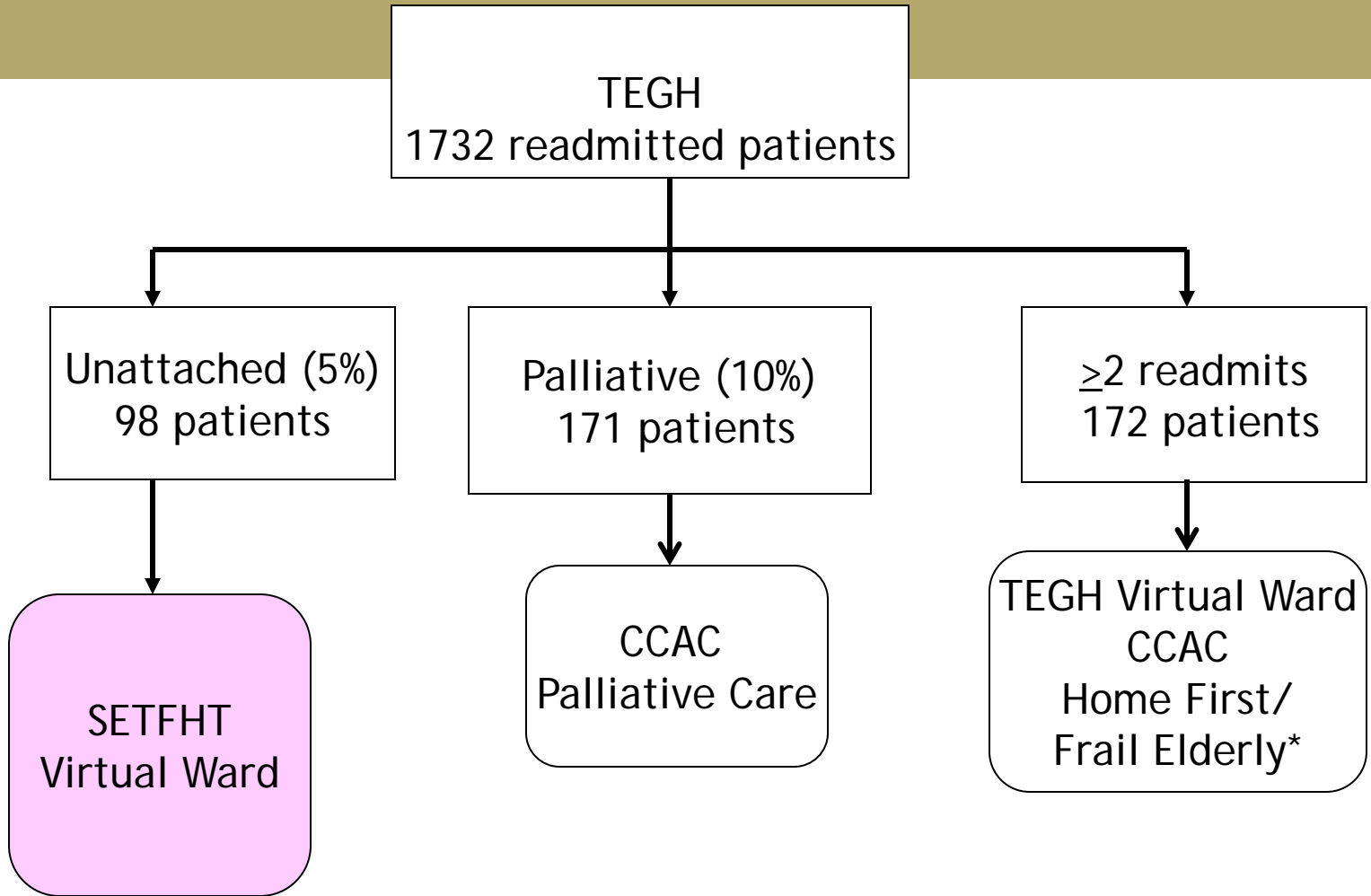
Interprofessional Team at SETFHT
Ready to start a Virtual Ward

Physician Assistant (PA)
- Works as the clinical case manager
- Meets patient the day before discharge at TEGH
- Will check on patients daily by phone
- Identifies patients needing intervention:
  - Arranges for FHT visits or with specialists
  - Communicates with family physician

Supervising Physician
- Clinical supervision of the team's work

Care Navigator
- Arranges CCAC services, transportation, community supports, lab work at home if required

Pharmacist
- Reviews/adjusts medication

Nurse Practitioner
- Provides home visits if required

Mental Health Addictions Counsellor
- Arranges for mental health and addiction supports as required

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Admission Criteria

- Admission to the Virtual Ward is based on the LACE score which allows identification of medical patients at high risk for readmission based on:
  - **L**ength of Stay
  - **A**cuity of admission
  - **C**omorbidities (CHF, COPD, DM2,...)
  - **E**mergency room visits - # in the last 6 months

  (CMAJ 182(6) 2010, 551-557)

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SETFHT Virtual Ward Process

In hospital:

- Unattached medical patients are identified as high risk daily based on LACE score >10

- Physician Assistant meets with the patient

- Patient is enrolled to the VW and attached to a family physician at SETFHT

- Hospital CCAC coordinator sets up CCAC services

- SETFHT Pharmacist informed of upcoming discharge to ensure medication reconciliation

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SETFHT Virtual Ward Process

Upon discharge:

- Follow up appointment arranged at SETFHT within 3 days to 1 week of discharge

- VW information package is given to patient

- Mediation reconciliation between SETFHT pharmacist & TEGH pharmacist

- Patient/family may receive Ontario Telemedicine Network (OTN) Telehomecare equipment for remote monitoring of vital signs

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Virtual Ward Monitoring

- Daily phone calls

- Remote monitoring with emphasis on health education and self management

- Daily rounds between PA and Virtual Ward physician

- Home visits as required

- Weekly review of patients and updated progress notes on hospital electronic system

- Monthly case conferences with entire team

Telehomecare

The Ontario Telemedicine Network provides equipment for remote monitoring of vital signs through their Telehomecare program.

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Telehomecare

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Outcome Measures

- Health care utilization:
  - 30 day readmission rate
  - PA time spent monitoring
  - Drop out rates, length of stay, # of visits to FHT
  - CCAC services
- Surveys
  - Health status – SF12
  - Use of health services
  - Patient experience/satisfaction
- Clinical indicators as per QIIP measures r/t COPD, Hypertension, and Diabetes

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Meeting Government Priorities

Reducing hospitalization by improving access to primary health care

- **Keeping patient out of hospital** - reducing wait times and burden on hospital emergency departments by providing same day access *(getting care when you need it);*

- **Family Health Care for all** – e*nsuring access* to the right provider at the right time, using an Interprofessional team based approach to care, particularly for patients with complex needs;

- Managing the patient with complex needs through **chronic disease prevention and management** and empowering patients to take care of own health at home through **self-management support**;

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Meeting Government Priorities

- **Encourage home visits** by primary care providers since many at risk patients have mobility issues or lack transportation

- **Increase physician support for CCAC** who is working in the patient's home already – accessing rapid consultation with a physician is challenging at present

- **Offering seamless transition from acute care to primary care** with the most suitable social and community services

- **New technologies** to monitor a patient's health through virtual means (i.e. Telehomecare);

- **Quality improvement** approach to improving patient outcomes; and

- Opening the doors to new health care professionals (**integration of a Physician Assistant in primary care** – less physician intervention needed*).*

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Meeting Government Priorities

A Virtual Ward within primary care empowers the role primary health care has in bridging the care gap experienced by many patients at the time of hospital discharge.

Expected savings by reducing readmission rates should make this model a sustainable health innovation.

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Improve care during and after a patient's hospitalization

- Putting the patient in the centre of care by involving him and his family support as active members of the care plan right at admission

- Ensure **communication** between admitting physician at the hospital and receiving community partners (FP, CCAC, community pharmacy)

- Development of **common electronic medical record** based out of TEGH and shared between providers across sectors

- Increase active **involvement of community partners** before, during, and after discharge

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Successes

Patient:

- Problems are identified early and intervention provided before patient deteriorates and is readmitted

- Directly connect with health care providers with minimal duplication of work

- Clinic appointments are facilitated

- Increase patient's own health literacy

- Improve care for people with chronic conditions and their families

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Successes

<u>Staff:</u>

- Improved communication and working relationship between health care providers

- Improved communication between primary care and community care

- Improved coordination of care with no duplication

- PA empowered and supported to take key responsibility

- Learning opportunity through sharing, discussing and solving patient problems

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Successes

SETFHT:

Immense interest in the program -

- **October 6th** – Association of Family Health Teams of Ontario (AFHTO) Annual Conference in Toronto (oral presentation);
- **November 1st** – CHSRF Picking up the Pace Annual Conference in Montreal (oral presentation);
- **November 4th** – Taking Charge of Our Health Conference in Toronto (oral presentation);
- **November 9th** – OHA Health Achieve Conference in Toronto (oral presentation);
- **November 10th** – Celebrating Health Innovations Forum in Toronto (poster presentation);
- **December 9th** – Patient Safety in Transitions in Care Summit in Toronto (poster presentation);
- **February 10th** – Quality Health Network Annual Conference in Toronto (oral presentation)

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Challenges

- **Patient complexity**: current method applied at TEGH identifies only sickest of sickest patients who have not had any family medicine care in a while – it might be short sighted to aim for drastic 30 day readmission rates in those; the benefits of the Virtual Ward might need to be extended to a much larger cohort of moderate to high risk patients

- Many high acuity patients **lack basic health literacy** and it is a slow learning process for them and their families on how to identify deterioration in advance and how to deal with health urgencies now that they have access to care

- Patient/family resistance to "weaning" from the intensity of care provided through VW

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Challenges

- Communication between different providers about the **COMMON PATIENT** → electronic Virtual Ward Record created in TEGH electronic record that all providers access (still need integrated EHR)

- Lack of incentives for **COLLABORATION** across various sectors →initial driving force dependent on common vision of key leaders, SILOS are slow to overcome

- Funding support for evaluation of project has been lacking so difficult to show outcomes without formal evaluation which will then lead to slower spread - *ensuring proper funding is in place to collect patient outcomes and develop measures that will encourage quality improvement methodology to develop a program that best meets the needs of the patient is essential*

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Policy implications for primary health

- **Provide Incentives for Collaboration** across sectors:
  - Acute care hospital/community care agency/primary care groups need to work together on the common goal to improve the transition from hospital back to the community

- **Encourage Communication**:
  - Create Electronic health records that can be shared by all care provider across different locations (→eHealth)
  - Move to billing practices encouraging phone conversations between care providers, between patients and care providers, and between different health care sectors

- Ensure proper funding is in place to **collect patient outcomes** and apply quality improvement methodology to develop programs that best meet the needs of the patient/**maximize IT to drive the quality agenda**

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Policy implications for primary health

- **Team-based approach to complex patient care in the community** has now become available in Ontario through the creation of Family Health Teams
  - foster spread across FHTs, and linkages between hospitals and FHTs (and CCAC)

- Remove barriers to **Home Visits** – challenge of encouraging high volume = increasing access in primary care versus reaching out to the frail patient at home

- Develop **computational capacity** across province to calculate primary care based risk-score for admissions (as modelled in the UK) in order to target patients at risk for admissions BEFORE they decompensate and require admission

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Case Study #1

D.F.

- 85 year old female with COPD, heart failure

- Admitted to TEGH in June with COPD exacerbation

- LACE score 16

- Prior to Virtual Ward admission, was admitted to hospital 1-2 x a month between Feb and June.

- No admissions to hospital for 3 mos post Virtual Ward admission.

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- VW monitoring and f/u managed to detect worsening heart failure. Appointment with family doctor was fast tracked resulting in stabilizing her heart failure without the need for ER visit or hospital admission

- Infectious exacerbation of her COPD identified on 4 occasions and medical intervention was provided **before** patient has deteriorated to the point that readmission is required.

- Awaiting valve replacement – will only do procedure if she remained stable and out of hospital 4 mos. Date pending.

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Case Study #2

BB

- 67 year old male with heart failure and poorly controlled diabetes

- LACE 12

- HbA1C on admission to VW in July was 13.8

- Glucometer provided, seen by Dietitian, heart failure meds adjusted based on OTN Telehomecare monitoring

- Team-based patient care approach by offering chronic disease management programs/patient self management modules

- HbA1C now 9.2 and heart failure symptoms stable

- Pt reports feeling "the best I've ever felt", has lost wt, is aware of what to eat and reports feeling more confident in managing his symptoms.

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HM

- 72 year old male with heart failure
- LACE 12
- Admitted several times with heart failure.
- Caregiver burnout
- Telehomecare monitoring and f/u resulted in medications being adjusted resulting in decreased edema and SOB
- Family feels supported – state they didn't know where to turn or who to call prior to VW admission. Like knowing that someone is monitoring symptoms and vitals
- Stable and ready to discharge

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Case Study #4

MA

- 72 year old female with heart failure, lives alone, few family supports.

- LACE 12

- Previously admitted to hospital several times with heart failure. Caregiver burnout.

- Home visit made - detected that pt not doing well

- Virtual Ward rounds – discussion with team on medical and social difficulties

- Primary care physician updated on clinical and social status, and she convinced patient to consider placement when the patient was again admitted

Addendum: patient passed away in hospital after 2 months

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Thank You

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