Virtual Critical Care Pilot

NE LHIN

April 2009-June 2010

Leads: D Boyle MD
       K Kostiw RN
Pilot Goals

• Demonstrate that emergent delivery of video consultations to remote Intensive Care Units (ICU’s) is feasible
  - We will have improved patient care access to timely specialist/physician consultations and potentially improve outcomes

• Primary End Points:
  - Time commitments
    - i) for providers
    - ii) for initial connections
  - Qualitative assessment of service by involved providers (MD/RN/RT) and patients
  - Improvements in standard of care and practice patterns (best practice) and offer Continued Medical Education (CME) opportunities
Pilot Results

Utilization

- 30 consults (23 Kirkland, 5 Temiskaming, 2 Lady Minto)
- One consult to London Health Sciences
- Eleven patients did not have to be transferred out of their community
- Timely connections averaged < 30 minutes
- If the decision was made to transfer to HRSRH – timely transfers were facilitated
Pilot Results

Patient profile

• Typical Medical-Surgical ICU patients
  □ Patients that the physician at the distant site deems appropriate for an Intensivist consult
  □ Complex patients requiring higher level of ICU care
  □ Patients with difficulty breathing that may be on a ventilator or other special equipment
  □ Patients that are unstable or are requiring special monitoring and intervention
Pilot Results

GOAL:

- Demonstrate that emergent delivery of videoconsultations to distant ICU’s is feasible
  - Will have improved patient care access to timely specialist/physician consultations and potentially improved outcomes

Results

- Timely access to specialist (intensivist) consult via CRITICALL was less than 30 min
- MD/RN/RT that were involved in Virtual Critical Care (VCC) consultations confirmed that they felt that VCC enhanced patient care
- Well accepted by MD/RN/RT at the distant sites and the lead site

_Service is useful as it increases the consultants’ ability to share patient care rather than just consult at a distance_
Pilot Results

GOAL:

- Measure Time commitments
  - i) for providers
  - ii) for initial connections

For providers:

- Connections were efficient and timely
- Access to a patients’ medical records and xrays were considered “good” to “excellent” in terms of enhancing patient care
- Slightly longer time commitments than for usual telephone consults
- Time to initial connections timely— for majority – OTN connection and EMR (electronic medical record) access within 30 minutes or less.
Pilot Results

GOAL:

- Qualitative assessment of service by involved providers (MD/RN/RT) and patients

Distant Site Providers:

- Physicians felt that VCC enhanced patient care
- Better than phone consult
- Distant physicians felt more confident in providing best practice in their critical care unit with timely intensivist consultation

Lead Site Providers:

- Physicians had a better overall picture which led to better assessments (VCC, EMR, Xrays, CT) than traditional phone consult --- able to initiate new treatment strategy early (and potentially improve outcome)
- A crucial element of pilot success was the coordination of all elements of information for the initial, subsequent and daily to frequent follow up by Critical Care Response Team (CCRT) RN and/or RT as well

- Very well accepted by patients and family
Pilot Results

GOAL:

- Improvement in practice patterns (best practice and CME opportunities)

- Practical Best Practice Manual –
  - developed a step by step manual in regards to information on how to access VCC
  - Process of VCC
  - Expectations of health care team at the distant and lead site
  - Critical care standards and best practice
  - Education for physicians, RN’s and RT’s
  - the role of CRITICALL
  - the role of OTN (Ontario Telemedicine Network)

- Manual well received at distant site (by MD’s/RN’s/RT’s) and assisted in providing a common plan of care for both distant and lead sites

- CME sessions:
  - Well attended on “Septic Shock” – March 2010
  - Next session planned – Ventilation Strategies -- practical tips from RT’s for distant sites
Pilot Conclusion

- **Timely** Virtual Critical Care consultations can be delivered effectively and efficiently with good patient outcomes.
- Consultations are perceived as **valuable** and lead to improved patient care by providers (at distant and lead site critical care units).
- Patients and families felt they received good care and that their privacy issues were addressed.
Next Steps

- **Short-Term:**

- Current sites will have ability to continue to access the current “pilot” service thanks to ongoing HRSRH-intensivist support (voluntary), HRSRH-CCRT nurse, OTN and CritiCall

- This will be on an *interim* basis until Medium and Long-Term next steps can be confirmed
Next Steps

- **Long Term:**
  - Goal would be to rollout across the NE LHIN and potentially other LHIN’s (northwest, central-west and others with small Level 2 ICU’s within their LHIN)

*To be successful will need to:*

- Consider home access options for lead intensivist (after hours) -- e.g.: OTN connection
- Formalize as part of CCRT follow-up core duty – this will ensure that all patients will be followed up at the lead site until discharged from Virtual Critical Care. Re-evaluation of workloads of CCRT would need to be on an ongoing basis if Virtual Critical Care sites expand.
- Recognition as part of regional extended CCRT physician role (similar to Peds CCRT model)