


LACE

Using risk prediction in planning discharge for patients with complex health and social needs

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With acknowledgement to Linda Govan

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ED Care Coordination

- 1.4 EFT Covering ED and SSU (8)…18+ bays 5 FT, 3 resus
- Ballarat Health Services covers the Grampians region (48,000km ^{2}, pop. 225,000)
- 53 320 pts a year in ED…Av 4500 seen per month2012 -13
- Cat 2 4592 Cat 3 13839 …Cat 4 26786… Cat 5- 7764.. 800 month admitted to hospital- 200 month to SSU
- Diverting/redirecting or preventing unnecessary hospital ED presentations…Providing alternatives to inpatient admission
- Patient flow and reducing LOS through hospital by planning discharge / referrals on admission
- Support to families and carers of those who attend ED
- Complex needs as identified by all in ED
- Socially or geographically isolated

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Focus on care transitions





- Efficiency strategies have targeted decreasing LOS
- We need to shift the focus to the prevention of unnecessary acute readmissions, as our health landscape changes with increasing chronic disease
- If a pt experiences a preventable readmission (within 30 days after discharge) this is likely to be an indication of a poor **Care Transition**
- Focusing on *Readmissions* is a key way to improve care transitions

(Scott 2010, Seamless Transitions 2011,Goldfield 2010)

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Why is this a problem ?





- Representations / Readmissions rates... ***30 day representation rate to ED In May 2010, BHS had a 17% 2011/12, 13.94%***
- Increasingly complex patients
- Variance in clinician skill re discharge planning
- Service fragmentation (program silos), lack of medical/pharmacy post DC
- Barriers in access to primary care (GPs, other)
- BHS considered issues and made a connection with Advisory Board
- Exploration of models in USA/Canada…virtual wards…Doreen Bauer
- Readmission and Discharge Conference 2011, 2013

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Representations & and readmissions





Most frequent reasons for representation/readmissions:

- COPD, dyspnoea, CHF, and progressive illness (Kirby 2010, Scott 2010)
- Social isolation, lower SES, impaired cognition or functional decline
- Previous long hospital admission (Scott 2010)
- Poor and fragmented communication within healthcare team (Morris 2012)
- Early discharge of the patient (Gruneir et al 2011)
- Patient and families not prepared for discharge (Schoen et al 2011,Seamless transitions 2011)
- Inadequate community follow up (Gruneir et al 2011, Scott 2010

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Familiar themes *(What started us on this journey….)*





- 91 y/o male, with elderly debilitated wife, elective THR. DC 4/7 post Sx, new urinary incontinence...***readmitted***
- 36 y/o female, new T1DM, DKA, 4 kids , incapacitated husband, visual impaired due to illness...***readmitted***
- 87 y/o female DC to home in rural Grampians. Delayed discharge communication...***readmitted***

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Risk Assessment tools

- Ability to identify pts at increased risk of readmission
- Not to be used as sole method of identifying high risk pts but provides ability to identify pts in need of further r/v
- Tailor and target interventions / focusing resources
- Ease of implementation varies dependant on tool used

AIM OF LACE

- Develop an index that quantify risk- readmission or death post discharge
- To assist clinicians to identify pts who may benefit from targeted resources & interventions post discharge

"Derivation and validation of an index to predict early death or unplanned readmission after discharge from hospital to the community" Carl van Walraven et al, CMAJ Apr 6, 2010, 182 (6)

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LACE development…Carl van Walraven et al

- Study design: Multicentre prospective cohort study (‘02-’06)
- Tested 48 pt and admission variables (including functional status and supports) on 4812 pts discharged to the community from 11 hospitals in Ottawa, Canada
- Validation: internal (regression analysis) / external (1,000,000 pt records)….
- Only 4 variables were independently associated with readmission or death within 30 days of discharge

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Not another tool!





- ✓ FRAT...falls
- ✓ AUDIT....etoh dependence
- ✓ BRADENS....skin integrity
- ✓ ABSOLUTE risk....cardiovascular event
- ✓ AUSDRISK....developing T2DM
- ✓ ABCD algorithm...predicts risk of stroke post TIA
- ✓ ***LACE....risk of readmission***

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Virtual Ward Canadian Experience





Incorporates the elements of "in hospital" care and provides them at home:

- To identify those at risk of representation/ readmission (Use LACE ≥10)
- Telehealth /phone support …remote vital signs management.
- Incorporates community program silos under one umbrella…redesign

VW team: .....? (Canadian model…Dhalla et al. RCT completing now)

- Physician access and involvement 24/7 (urgent rather than emergent care)
- Pharmacy (Home based medication reconciliation on first visit)
- Care Coordinators (allied health & nursing) and opportunity for nurse practitioner roles
- Patient education and key learner identified ...
- Pt discharged from program when stable (4-6 wks)

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But first a BHS Pilot Project?





- Geographical located RN using LACE to identify patients who may have complex discharge needs (LACE ≥ 10) – cultural shift
- LACE ≤ 10…everyone's responsibility to DC safely (EDD)
- Initiates referral to allied health for planning safe DC …better use of limited resources
- Discharge coordinator makes referral to all community programs…not each program recruiting individually…
- Inform and coordinate DC plan to Medical, AH, key learner and ward staff
- Single point of access for all / Source of knowledge /communication to staff for patients less complex to discharge
- Consider redesign of community programs to include a VW & development of intake staff to become geographical located discharge coordinators

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