Emergency Telehealth Service

An innovative model of emergency care for rural WA

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The WA Country Health Service (WACHS) would like to respectfully acknowledge the Elders past and present of this country in which we live, share and operate.

WACHS also acknowledges the ongoing contribution of Traditional Owners as caretakers of their communities and Country.
Background

- The WA Country Health Service (WACHS) is the largest country health service in Australia and one of the biggest in the world.
- WACHS delivers a range of comprehensive health services across 2.5 million km² to more than 547,000 people, including around 55,000 Aboriginal people (10%).
WACHS emergency services
Characterised by:
- dispersed populations
- regional isolation
- > 70 sites, varying presentation rates, intermittent demand
- emergency medicine workforce hindered by availability and cost effectiveness
- WACHS manages 40% of WA’s emergency presentations with only 21% of the population
- many WACHS sites supported by solo GPs contracted to service local hospital patients
- nurse-led emergency care provision common; usually via telephone.
Emergency medical services in the southern inland region prior to 2011

- Access to medical support was limited in most smaller country hospital sites, particularly over the weekend and public holidays.
- Unacceptable levels of clinical risk to patients and in some towns, emergency and acute service failure, highlighted compliance issues with state and national standards.
- A diminishing GP rural workforce.
Introducing the Emergency Telehealth Service (ETS)

- Consultant-led emergency telemedicine service into rural and remote hospitals.
- Supports local country nurses and doctors treating ED patients.
- Service model pilot introduced in August 2012 at eight small hospital EDs in WA’s Wheatbelt, Friday to Sunday, 10am – 10pm.
- Funded under the half a billion dollar Southern Inland Health Initiative.
ETS today

- Pioneered a new service delivery model for emergency medicine.
- Transitioned to a dedicated 7 day-a-week service, delivering approx. 17,000 occasions of service per year (total to date: 45,000) at 76 sites across WA.
- Incremental expansion to 24/7 service has commenced – Friday to Monday as at 23 April 2017; other days 8am – 11pm.
- Phased expansion has been integral to successful growth, accommodating workforce and service delivery development in consultation with key stakeholders.
ETS service development principles

- Patient centred approach.
- Consultant-led emergency telemedicine service supporting WACHS sites to deliver quality, effective emergency medicine.
- Advocacy for the patient and local clinicians.
- Governance and operational management firmly established within WACHS.
- Collaborative regional development of ETS model for each region.
- Regional decision-making and local protocols guide intra-regional transfers with guidance and negotiation from the ETS physician.
ETS objectives

- Improve access to timely medical advice for ED presentations.
- Provide accessible, accountable emergency medicine specialist advice.
- Provide effective, appropriate diagnosis and treatment in local hospital EDs, keeping patients closer to home.
- Support rural clinicians to provide the right care at the right time where possible close to home.
- Reduce intra-regional and inter-regional transfers for rural patients.
Healthier country communities through partnerships and innovation

Values  Community  |  Compassion  |  Quality  |  Integrity  |  Justice
Equipment

- High definition videoconferencing equipment (HDX8000, Polycom) installed in ED resus bays at receiving sites – one above the foot of the bed for a birds-eye view, the other at 45 degrees providing an alternate view.
- ETS clinicians also use Polycom VC units and have full control of the cameras at the receiving site.
- Videoconference calls are transmitted using internet protocol at 1 Mbit/s delivering video at 1080P resolution.
How does a ‘virtual ED’ work?

- ETS clinicians rostered to operate in the ‘virtual’ space - metropolitan office or established remote regional hub location.
- Team work across the ‘virtual’ space is supported by group-chat instant messaging software.
- Site ED nurses triage patients as per standard ED protocols and WACHS guidelines to escalate for medical officer involvement, leading to ETS referral.
- ETS nurse coordinator supports patient flow in the virtual ED and assists with clinical support and coordination as required.
Growth in ETS activity

Healthier country communities through partnerships and innovation

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Results so far

- ETS model of care demonstrates the capacity to diagnose, treat and manage a variety of clinical problems via videoconferencing.
- WA’s ETS model is now leading the nation in the provision of emergency medicine in regional and remote hospitals and nursing posts.
- 75% of ETS patients are assessed, diagnosed, treated and discharged in their home towns.
- 13% of ETS referrals are high acuity (ATS 1 & 2), slightly higher than the average WA ED.
- ETS was recognised with a prestigious WA Premier's Award for Excellence in the 'Improving Government' category in 2014.
The success of the ETS has significantly improved access to contemporary emergency care and achievement of clinical standards for the first time in country WA.
ETS weekly activity summary

**WEEK 41**

Total ETS consults 2017 YTD: 4,976
Total ETS consults since 2012: 47,505

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<tr>
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<th>2016</th>
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<tr>
<td>Total ETS consults</td>
<td>10,977</td>
<td>this week: 393</td>
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<td>last week: 327</td>
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**Weekly ETS Activity by ATS (Triage Score)**

- 0: 45, 11%
- 50: 50, 13%
- 5: 157, 35%
- 1: 158, 40%

**% Regional Breakdown for the Week**

- Wheatbelt: 46.68%
- Midwest: 13.52%
- Pilbara: 27.65%
- Great Southern: 6.52%
- Goldfields: 2.04%
- South West: 3.83%
- Western: 6.35%

**ETS Weekly Activity by Outcome by ATS (Triage)**

- Home: 90
- Another Hospital: 10
- Did Not Wait: 0
- Against Advice: 0
- Admit to Hospital from ED: 2
- Referred to local escalation for medical advice: 0
- Return to Ward: 1
- Another Institution: 1
- Deceased: 2

Healthier country communities through partnerships and innovation

Values: Community | Compassion | Quality | Integrity | Justice
ETS benefits: clinical staff and patient feedback

✓ Increased community satisfaction; more confidence in local hospital ED service.
✓ Timely access for country patients, reduced need to travel and less time away from home and family.
✓ Timely and efficient referral to appropriate regional or metropolitan facilities.
✓ More efficient and timely transfer and retrieval, including enhanced handover.
✓ Level of governance and accountability not seen with ED telephone advice.
✓ Enhanced local clinician capacity, enabling better management of high acuity patients and reducing professional isolation.
✓ Capacity to address regional emergency service provision deficits.
✓ Improved knowledge, skills and access to professional development for rural and remote clinicians through dedicated professional education programs provided by the ETS.
Where to from here?

- ETS is funded through the Southern Inland Health Initiative (until end June 2017) and now faces the challenge of transition to mainstream service delivery within WACHS.

- The benefits of the ETS model to the rural sector are apparent:
  - rural capacity building
  - support for rural-based health professionals
  - continuity of care for patients
  - addresses the gap in clinical and survival outcomes between rural and urban patients.

- The successful integration of the model into a significant number of WA country EDs places it in a strong position for transition to business as usual.
Thank-you for your attendance

Questions?