UTI HAC – disentangling TLAs (and $) for the FLC

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Disclosures

- Nil commercial disclosures
- Acknowledge Mary-Rose Godsell, WACHS South West

- Previously
  - Healthcare Infection Surveillance WA
  - Office of Safety and Quality WA
  - Australian Commission on Safety and Quality in Healthcare
  - Medical administration

- Like an opportunity to rant

Outline

1. HAC program
2. Analysis of HAC UTI indicator for our health service
3. Discussion

Resources at Safetyandquality.gov.au

HAC program intended to improve patient safety, reduce cost

1. Provision of reliable data to clinicians and managers

2. Penalising hospitals for failing to prevent events

Bonus of "no work" to collect data – uses coded administrative data

What conditions are on the HACs list?

The HACs list includes the following complications:

1. **Pressure injury**
2. **Falls resulting in fracture or other intracranial injury**
3. **Healthcare-associated infection**

This hospital-acquired complication includes the diagnoses of*:

- Urinary tract infection — page 41
- Surgical site infection — page 44
- Pneumonia — page 46
- Bloodstream infection — page 48
- Central line and peripheral line associated bloodstream infection — page 49
- Multi-resistant organism — page 51
- Infection associated with prosthetics/implantable devices — page 53
- Gastrointestinal infection. — page 54

12. **Persistent incontinence**
13. **Malnutrition**
14. **Cardiac complications**
15. **Third and fourth degree perineal laceration during delivery**
16. **Neonatal birth trauma.**

HAC UTI

3. Healthcare-associated infection	3.1 Urinary tract infection	N390	N39.0	Urinary tract infe
		N300	N30.0	Acute cystitis
		O862	O86.2	Urinary tract infe

Numerator

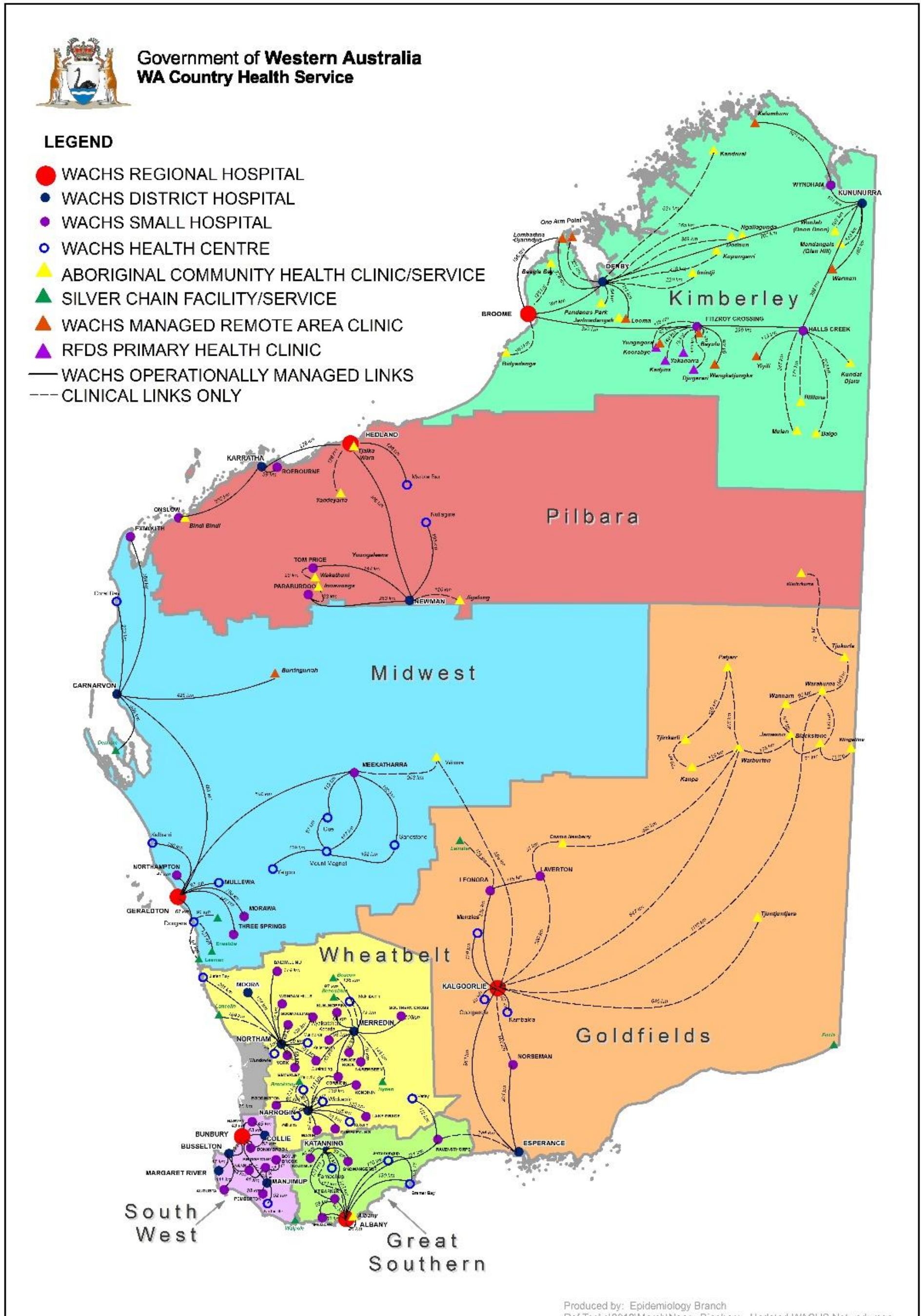
Complications 1-14

The numerator for each of the diagnosis is defined as separations:

- with at least one of the ICD-10-AM codes defining that diagnosis in Table A recorded as an additional diagnosis (i.e. NOT pri
- AND a condition onset flag (COF) code of 1 (Condition with onset during the episode of admitted patient care)
- AND any other criteria specified in 'Other associated codes' column of that diagnosis
- AND meeting the denominator criteria of:

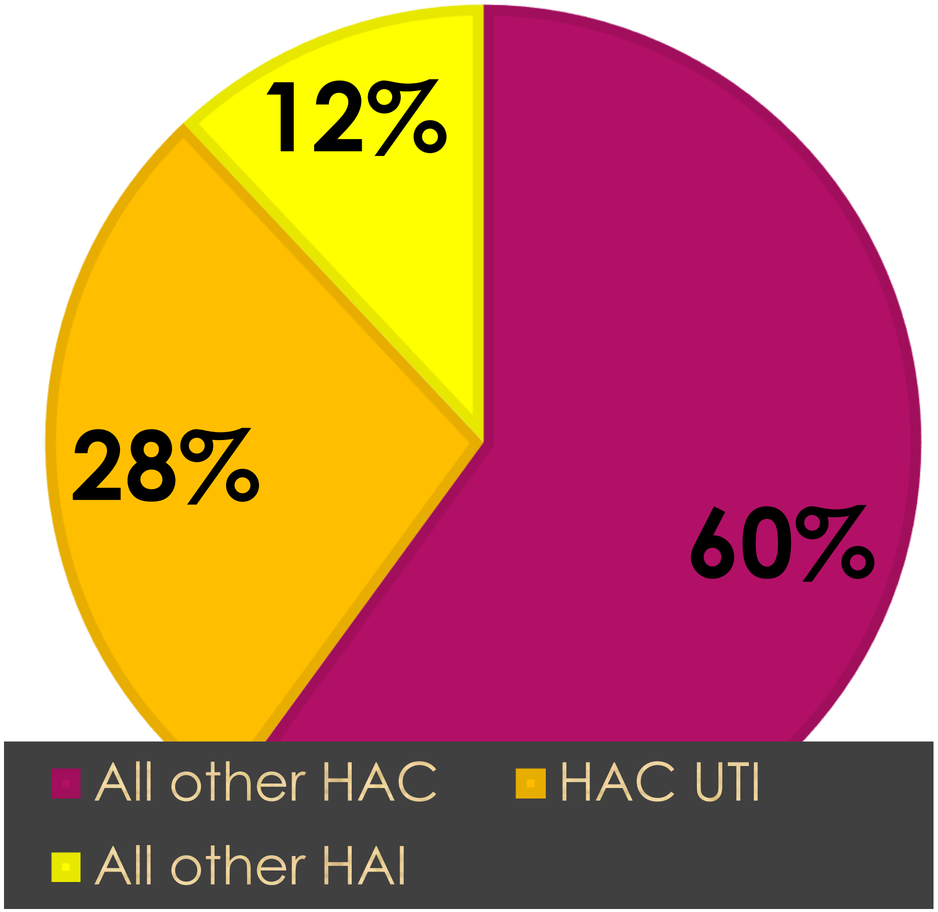
  All separations, excluding separations with ANY of the following:

  - Same-day chemotherapy - DRG V8: R63Z and admission date = separation date
  - Same-day haemodialysis - DRG V8: L61Z and admission date = separation date
  - Care type is 'Newborn - unqualified days only ' - Care type = 7.3
  - Care type is 'Hospital boarder' - Care type = 10
  - Care type is 'Organ procurement-posthumous' - Care type = 9.



WA Country Health Service (WACHS)

WACHS HACS = 1393 (2016/17)



- HAC UTI 28% of total
- $ implications
- Variation ++ between regions
- Need to reduce!
- Really ???

Retrospective HAC UTI analysis

- Chart review applying NHSN definitions to all coded HAC UTI in 2 regions over 6 months 2018
- **62 HAC UTI**
  - 7 (18%, 95% CI 10-29%) validated using NHSN criteria
  - **55/62 (82%) false positive**
- Separate prospective NHSN methodology CAUTI surveillance
  - 4 CAUTI detected in same time period
  - ¼ CAUTI coded as a HAC UTI

Why focus on hospital-acquired infections?

Urinary tract infection (UTI) refers to an infection affecting the bladder, urethra, ureters or kidneys.

Around 20,500 hospital-acquired UTIs occur each year in Australian hospitals#

112.1 Highest rate of this HAC
Principal Referral Hospita

47.1 Aggregate rate of this HAC at Principal Referral Hospitals

Per 10,000 hospitalisations

If all hospitals reduced their rate of this HAC to less than 47.1 per 10,000 hospitalisations, it would prevent at least **2,757 UTIs**

All facilities should be working to reduce their rates of UTIs.

We knew this already

- Mitchell et al 2016
  - 45% of coded HAUTIs had positive microbiology
- Van Mourik et al BMJ Open 2015
  - 15 HAUTI studies PPV below 25% for all
- Redondo-Gonzalez 2018
  - CAUTI only pooled +LHR 12.94, insignificant agreement with surveillance definition (kappa <0.21)

HAC program designed to drive change and reduce HAIs

1. Provision of <u>reliable</u> data to clinicians and managers
2. Penalising hospitals for failing to prevent events

Bonus of no work to collect data

Do penalties work?

Research

Changes in hospital safety following penalties in the US Hospital Acquired Condition Reduction Program: retrospective cohort study

BMJ 2019 ; 366 doi: https://doi.org/10.1136/bmj.l4109 (Published 03 July 2019)

Conclusions Penalization was not associated with significant changes in rates of hospital acquired conditions, 30 day readmission, or 30 day mortality, and does not appear to drive meaningful clinical improvements. By disproportionately penalizing hospitals caring for more disadvantaged patients, the HACRP could exacerbate inequities in care.

Sankaran et al. Changes in hospital safety following penalties in the US Hospital Acquired Condition Reduction Program: retrospective cohort study *BMJ* 2019; 366 :l4109

HAC program designed to drive change and reduce HAIs

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Response - invest in resources to improve documentation and co

- Hea ysis, use
- “Cli
- o” for clinicians to use to improve documentation

Better documenta ot better care

Improved coding of an infection doesn’t prevent the next one

HAC program designed to reduce HAIs by

1. Provision of reliable data to clinicians and managers
2. Penalising hospitals for failing to prevent events

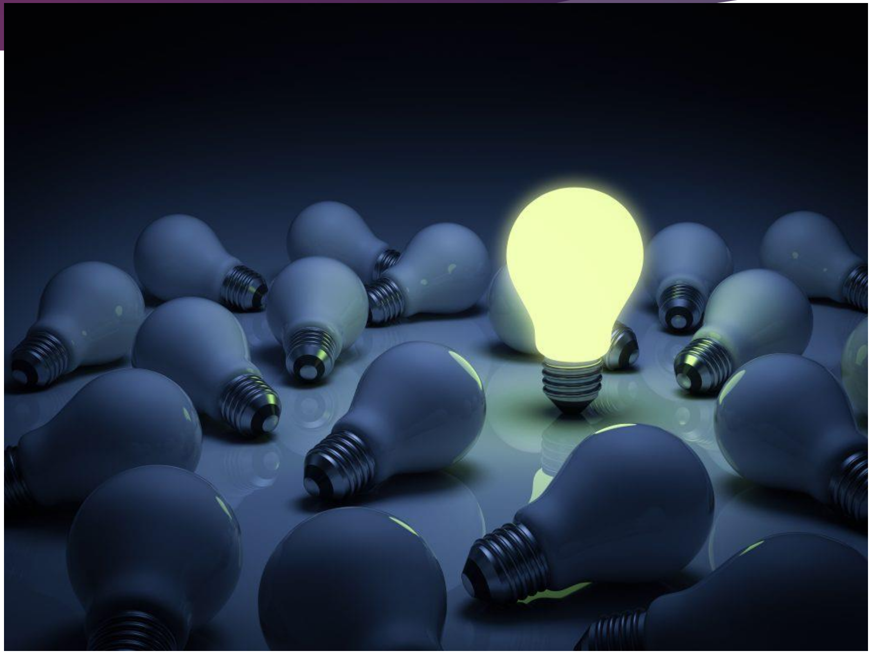
Bonus of no work to collect data

The problem is

1. This data isn't reliable – at least for HAC UTI
2. Penalty programs have not been shown to improve outcomes, cause inequity

There is +++ work to make data reliable

Consistent with broader policy settings



- Idea that "shedding light" will lead to change
- Other examples
  - NAPLAN

Don Berwick

Google **YouTube**
Keynote 3 Glasgow IHI
BMJ Forum

<u>"MEASUREMENT IS A POOR MAN'S CONVERSATION"</u>

- Costs soar, counter-measures and gaming
- From patient's point of view = WASTE
- Never confuse a measurement with what is important
- **Put measurement on a diet**

In the meantime we should focus on strategies that do work

- Be curious, identify OUR problems
- Focus on quality improvement, using the HAC prevention resources
- Only collect enough data to guide our quality improvement work
- Don't stop surveillance if efficient and useful in guiding improvement

Focus on working with & having conversations with people

Thanks