Engaging clinicians and managers early on Hospital Acquired Complications: results of a novel approach developed in Australia and Ireland to improve the quality of coded data

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Hospital-Acquired Complications

HACs

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Accurate reporting of HACs will be a key focus for Public and Private funders

Australian Quality and Safety Council - 38 HACs

- Private hospitals are set to come under the same scrutiny as public hospitals, and be required to report their performance at the same time, after health ministers recognised a need to align quality benchmarks and transparency across the system.
- Coded data that is used for funding will also be used to measure quality and safety outcomes. Coding that focuses only on revenue optimisation without data quality may have unintended consequences.

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Penalising hospitals for 38 HACs – questions

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- How do we know that all HACs are captured?
- How do we know that these are real HACs?
- Are we penalized for good clinical records and coding properly?
- Are we incentivised to code strategicaly and hide our HACs?
- Time lag between a HAC and penalty – clinicians' engagement – do they remember?
- Is quality data improving quality of care?
- Do we need clinical performance indicators separate from the funding data?

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We did more of the same

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- Developed set of safety and data quality indicators
- 30m episodes of care reviewed
- Established the level of under-reporting of HACs
- Benchmarked HACs and coding quality against the peers (peers = similar case-mix, age and procedures adjusted)
- Made a really good tool for improving data quality before reporting it to payers

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Ranking hospitals

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A. Reported HACs – low compared to peer hospitals.

B. Quality of data underpinning HACS based on tool - high compared to peers

C. How specific their data is, based on how much detail they give in coding (use of 'other' and 'unspecified' codes)

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Three categories of hospitals

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Category 1. All three measures are good

Category 2. Measure A is good but measures B and C are poor - they are under reporting

Category 3. All three measures are poor. They are not doing well, they are worse than they think.

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Benchmarking Reported HACs

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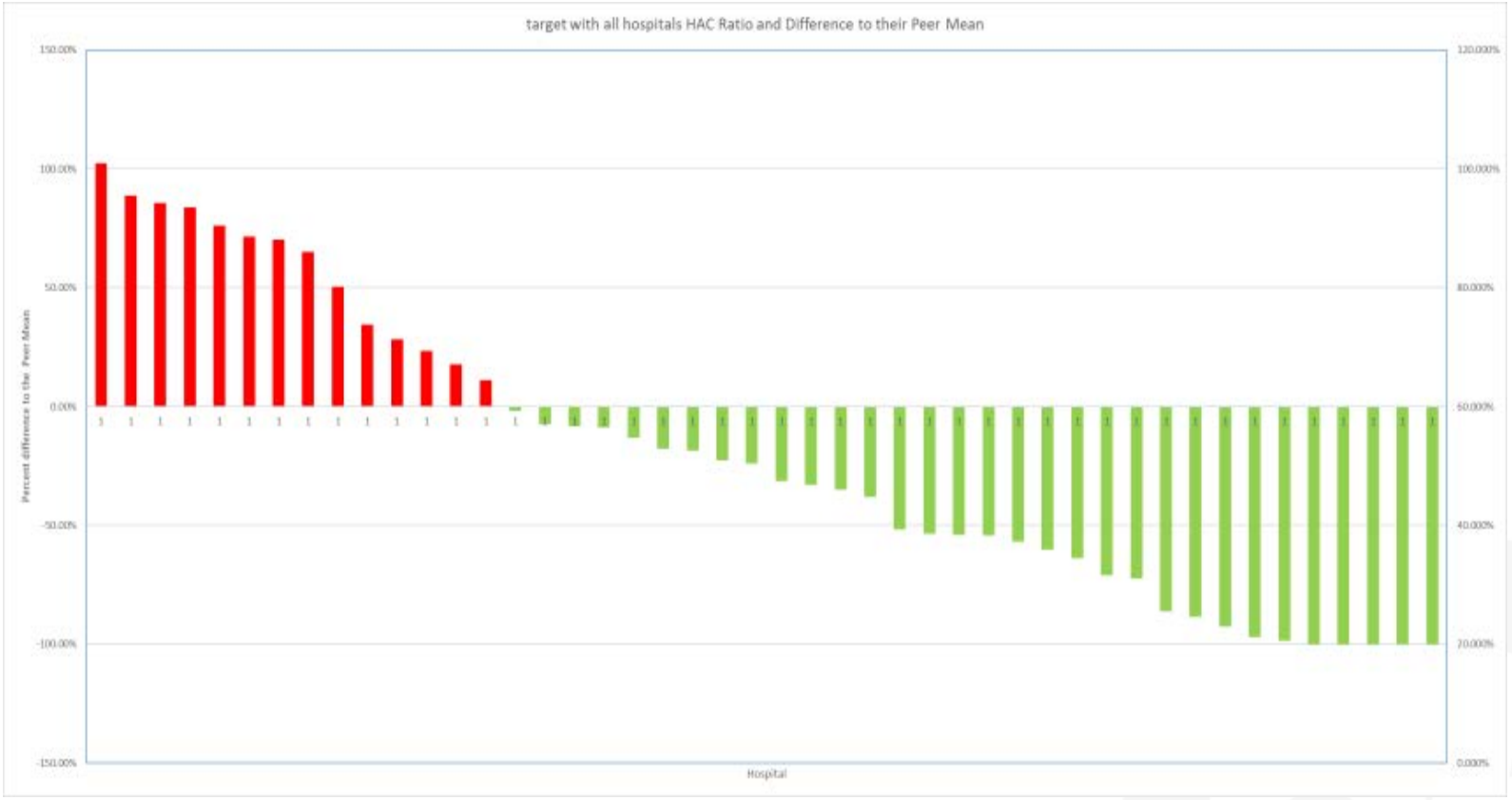

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Benchmarking quality of data

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Indicator Number	Rationale	Numerator	Denominator	Ratio
105064	Condition Onset Flag 2 and Urinary incontinence code	2735	4455	61%
105063	Condition Onset Flag 2 and Delirium code	1953	3591	54%
105067	Condition Onset Flag 2 and Arrhythmia code	1846	8653	21%
105065	Condition Onset Flag 2 and Malnutrition code	1509	3450	44%
105066	Condition Onset Flag 2 and Heart failure code	1379	3778	37%
105048	Condition Onset Flag 2 and Urinary tract infection code	1101	4496	24%
105049	Condition Onset Flag 2 and Pneumonia code	755	2980	25%
105033	Condition Onset Flag 2 and Acute coronary syndrome code	683	1439	47%
105050	Condition Onset Flag 2 and Blood stream infection code	570	1827	31%
105062	Condition Onset Flag 2 and Hypoglycaemia code	538	829	65%
105061	Condition Onset Flag 2 and Haemorrhagic disorder due to circulating anticoagulants code	365	677	54%
105023	Condition Onset Flag 2 and Orthopaedic procedural complication code	274	562	49%
105051	Condition Onset Flag 2 and Multi-resistant organism code	266	1480	18%
105055	Condition Onset Flag 2 and Aspiration pneumonia code	260	451	58%
105059	Condition Onset Flag 2 and Gastrointestinal bleeding code	251	3115	8%
105047	Condition Onset Flag 2 and Pressure injury unspecified stage code	243	622	39%
105005	Condition Onset Flag 2 and Haemorrhage and haematoma complicating a procedure code	233	1767	13%
105031	Condition Onset Flag 2 and Surgical site infection code	225	608	37%
105057	Condition Onset Flag 2 and Deep vein thrombosis code	212	1105	19%
105030	Condition Onset Flag 2 and Wound dehiscence code	172	398	43%
105022	Condition Onset Flag 2 and Genitourinary procedural complication code	139	576	24%
105056	Condition Onset Flag 2 and Pulmonary embolism code	139	592	23%
105021	Condition Onset Flag 2 and Other postprocedural disorders of circulatory system code	137	974	14%

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Combined Analysis– RISQ

Relative good quality HAC with good quality data

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Hospital	HAC Difference ratio	COF Difference ratio
	-11%	-21%
	-14%	-59%
	-24%	-11%
	-26%	-33%
	-27%	-12%
	-33%	-33%
	-48%	-15%
	-52%	-14%
	-57%	-55%
	-60%	-79%
	-65%	-8%
	-69%	-12%
	-72%	-23%
	-80%	-72%
	-96%	-79%
	-100%	-86%
	-100%	-60%
	-100%	-1%
	-100%	#NUM!

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Combined Analysis– RISQ

Relative good quality HAC with poor quality data potential under reporting

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Hospital	HAC Difference ratio	COF Difference ratio
	-6%	0%
	-67%	9%
	-100%	4%
	-100%	9%

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Combined Analysis– RISQ

Relative poor quality HAC with poor quality data

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Hospital	HAC Difference ratio	COF Difference ratio
	46%	64%
	72%	58%
	30%	53%
	39%	44%
	12%	25%
	69%	13%
	44%	5%
	16%	4%
	17%	2%
	87%	0%

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Combined Analysis– RISQ

Hospital level analysis

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Major HAC Grouping	HAC Difference ratio	Quality Difference ratio
Respiratory complications	266%	35%
Healthcare associated infection	171%	12%
Venous thromboembolism	134%	3%
Delirium	20%	27%
Pressure injury	12%	20%
Cardiac complications	-5%	54%
Medication complications	-44%	21%
Gastrointestinal bleeding	-53%	76%
Malnutrition	-81%	41%
Falls resulting in fracture or other intracranial injury	-100%	292%
Renal failure	-100%	-100%
Surgical complications requiring unplanned return to theatre	-100%	93%
Persistent incontinence	-100%	50%
Neonatal birth trauma	-100%	-100%
Third and fourth degree perineal laceration during delivery	-100%	-100%

Areas of concern

- Respiratory complications
- Associated infection

Possible under reporting

- Falls

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RISQ™ Measurement

Ultimate aim – Improved patient care & resourcing

Value proposition of early clinicians engagement

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- What were my HAC's by patient for the last week?
- How externaly reported HACs correspond with other performance measurement systems?
- I want to have input in HAC measurement and make it relevant to my clinical practice
- Were these my patients?
- How do I compare with my peers inside and outside the hospital?
- What do I need to do to improve?
- Are we improving or getting worse?

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RISQ™ Concepts

RISQ™ is a clinical-facing quality Improvement tool

- Measures incidence of HACs
- Provides method to compare safety and quality performance
  - At patient, clinician, specialty hospital, district, national level
  - At a point in time or over a period
- Measure qualuty of data underpinning HACs
  - COF (RSIQ™) indicators identify episodes that may be miss-coded and underreported

HACs are the intellectual property of the Australian Commission on Safety and Quality in Health Care (the Commission). The version used was sourced from: https://www.safetyandquality.gov.au/our-work/information-strategy/indicators/hospital-acquired-complications/

RISQ™ indicators are the intellectual property of Pavilion Health, and review the quality of the application of the Condition Onset Flags in the coding process.

Ceterum censeo….

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PERFORMANCE INDICATORS FOR CODING QUALITY

- **….engaging clinicians early is essential**
- Outcome based payments come to nothing if outcomes do not change
- Performance measurements data and data for funding need to be the same
- Safe an quality health care is driven by information and expertise and professionalism of the workforce*
- Good quality coded data - ONE SOURCE OF TRUTH

risq™

*Comission on Safety and Quality of Health Care

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