

The truth, the whole truth and nothing but the truth

Data Linkage Symposium

25 November, 2014

Overview

- Cardiac Clinical Informatics Unit
 - Who, what, why and where
- Examples of data linkage
 - Current linkages
 - Opportunities for linkages
 - Improve clinical data quality
 - Operational reporting

Statewide Cardiac Clinical Informatics Unit

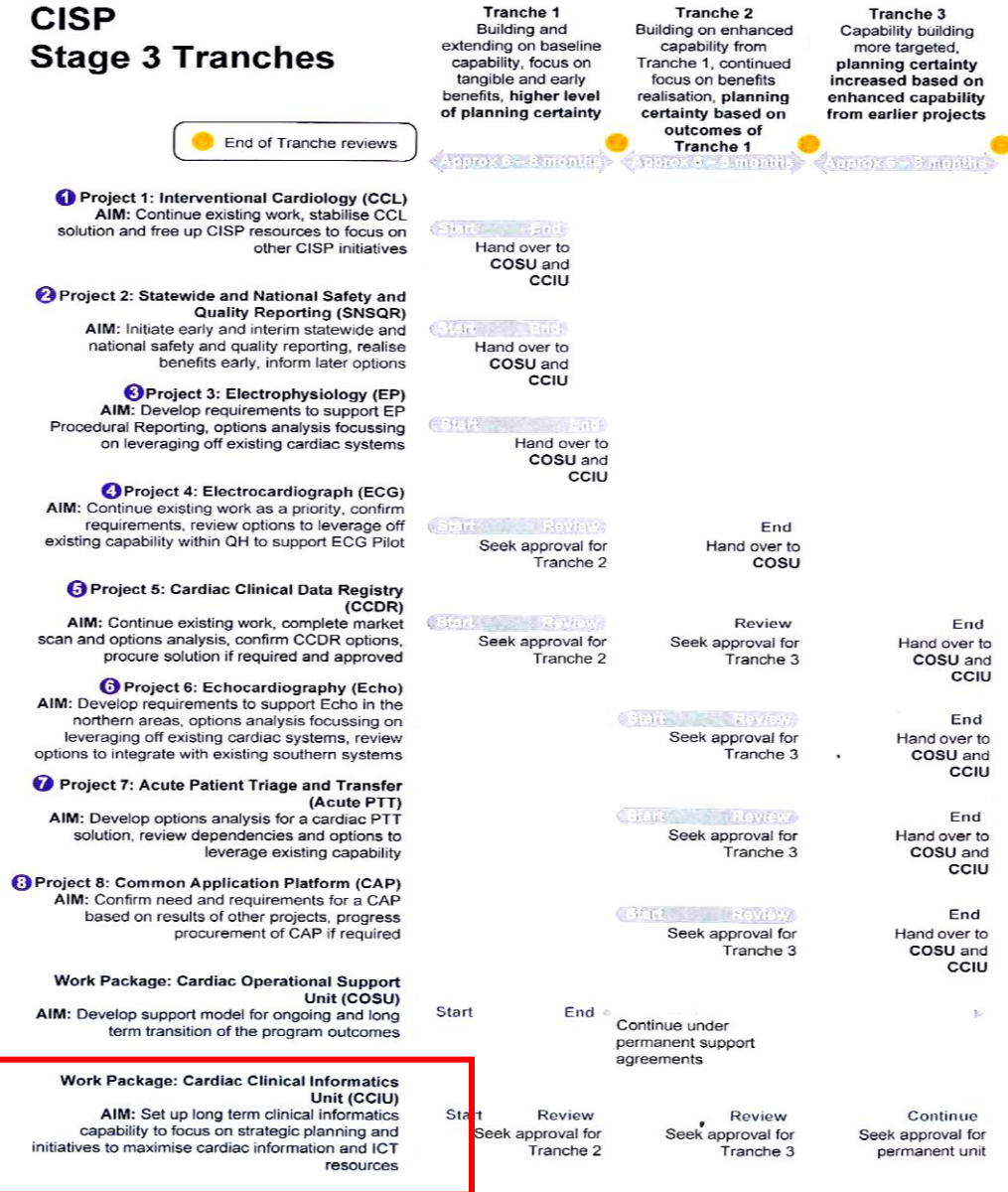
Who, What, Why, Where and How

Who?

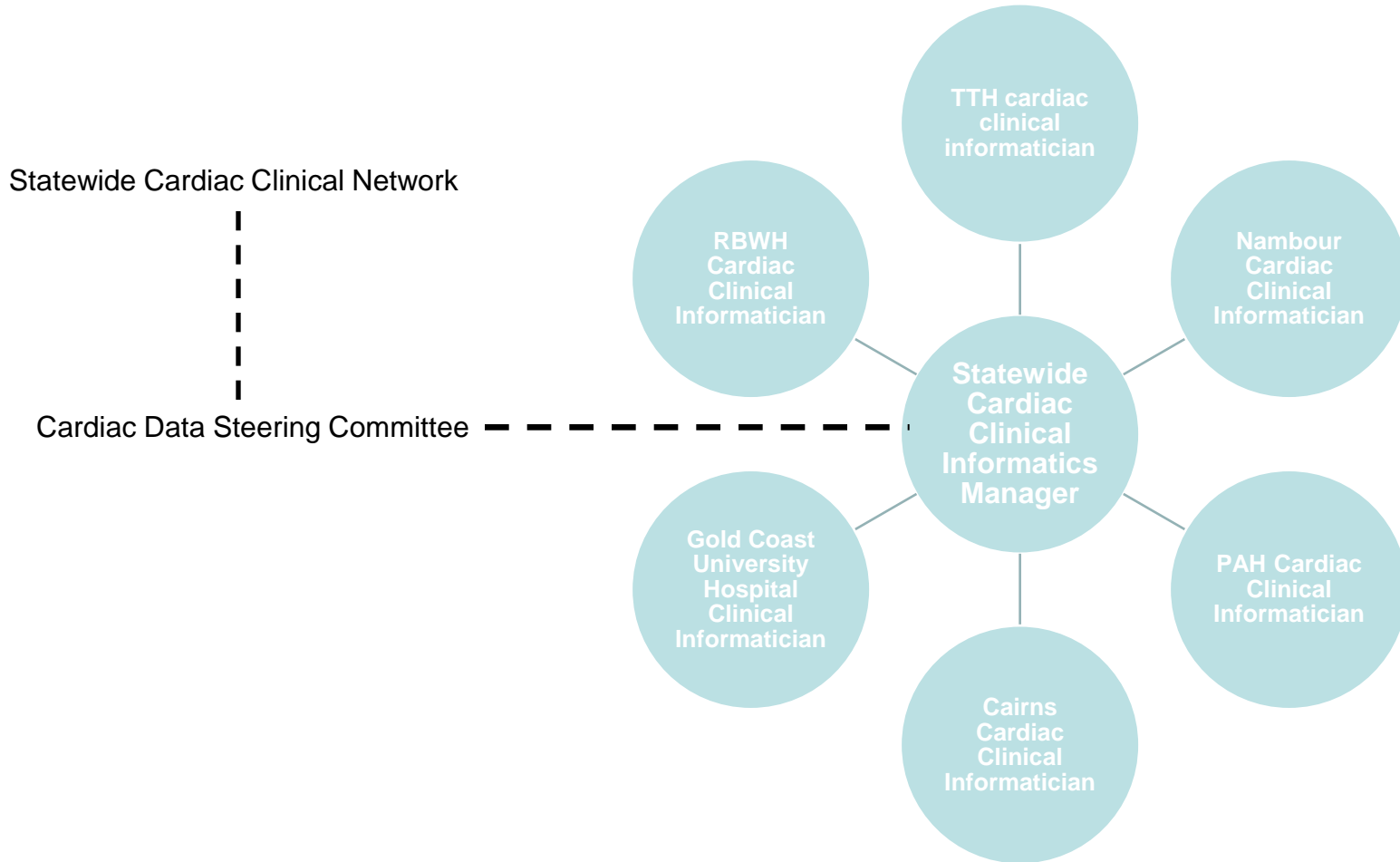
- The Cardiac Information Solutions Program (CISP) is an initiative of the Statewide Cardiac Clinical Network
- Multiyear program of work initiated to resolve information barriers to the provision of safe, effective and efficient cardiac clinical care within HHSs across Queensland

Figure 1-2 CISP Stage 3 Program of Work and Tranches

CISP Stage 3 Tranches



What?



Centralised model for collecting and distributing fragmented cardiac data

Why?

- Cardiac Catheter Laboratories x 7
- Cardiac Surgery x 3
- Heart Failure – Statewide
- Cardiac Rehabilitation – pilot Metro South

Where?

Royal Brisbane & Women's Hospital



Block 7, Level 6

How?

Philosophy

1. Collect once, use many

2. Data is for learning, not judgement

– improving patient outcomes

- Statewide clinical indicator program
- Participate in National Clinical Quality Registries
- Health services and care outcome planning
- Compliance with legislative performance management accountabilities at a National, State and Local level

Approach

- Clinician-led/focused informatics service
 - Cardiac Data Steering Committee
- Phased approach - initial priority to build trust in the quality and use of data
 - Phase one: developing clinically relevant reporting
 - Cardiac Clinical Indicator Program

The right data

- Clinical systems lack administrative data
- Administrative systems lack clinical data
- *Data linkage* provides a comprehensive view using both administrative and clinical data
- Leads us to the truth, the whole truth and nothing but the truth

Examples of data linkages

1. Current linkages

2. Opportunities for linkages

- Improve clinical data quality
- Operational reporting

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Example 1. Current linkages

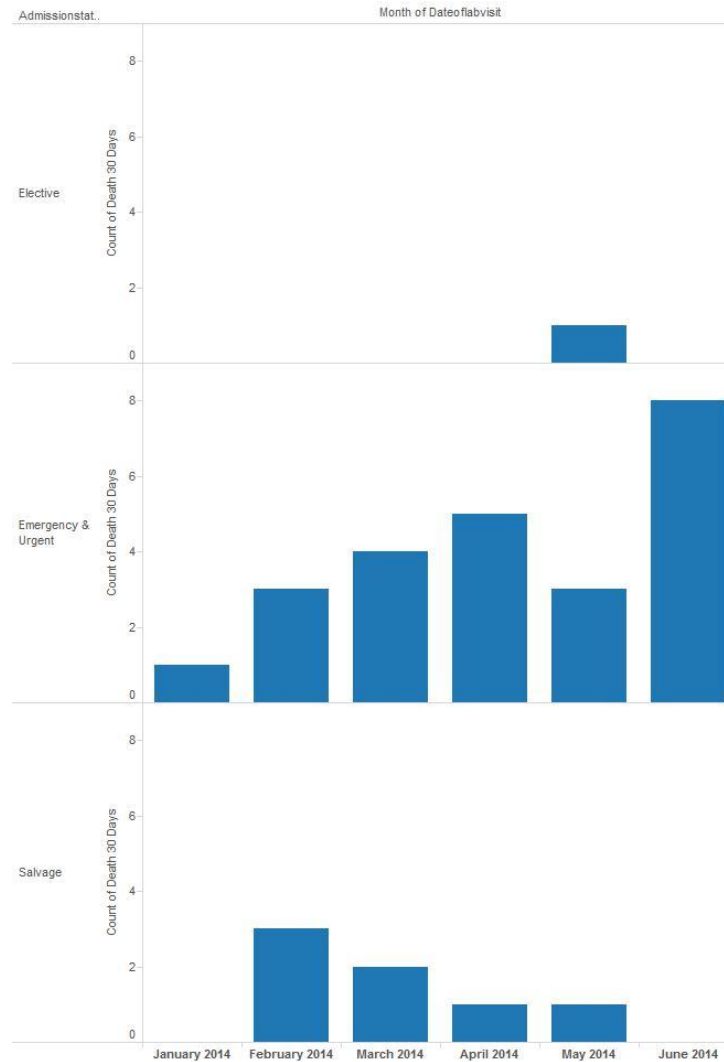
Cardiac Clinical Indicator Program

- Cardiac Data Steering Committee developed the first draft of the cardiac clinical indicator program in Sept, 2013
- Endorsed at the inaugural Statewide Cardiac Data Forum in November 2013
- **5 indicators, 2 of which require data linkage**

Qld Cardiac Performance Metrics

- CI.1** All cause, unadjusted 30-day mortality post PCI
- CI 2.** Proportion of STEMI patients presenting within 6 hours of symptom onset, who received an intervention within 90 minutes of first medical contact and/or first diagnostic ECG
- CI 3.** Proportion of NSTEMI patients who received angiography within 72 hours of hospital admission
- CI 4.** Proportion of major IN LAB events post PCI (perforation requiring intervention, death, tamponade, emergency CABG or CVA-stroke)
- CI 5.** Proportion of PCI cases where total entrance dose exceeded the high dose threshold (HDT)

CI1 Tableau (fictitious data)



Examples of data linkages

1. Current linkages

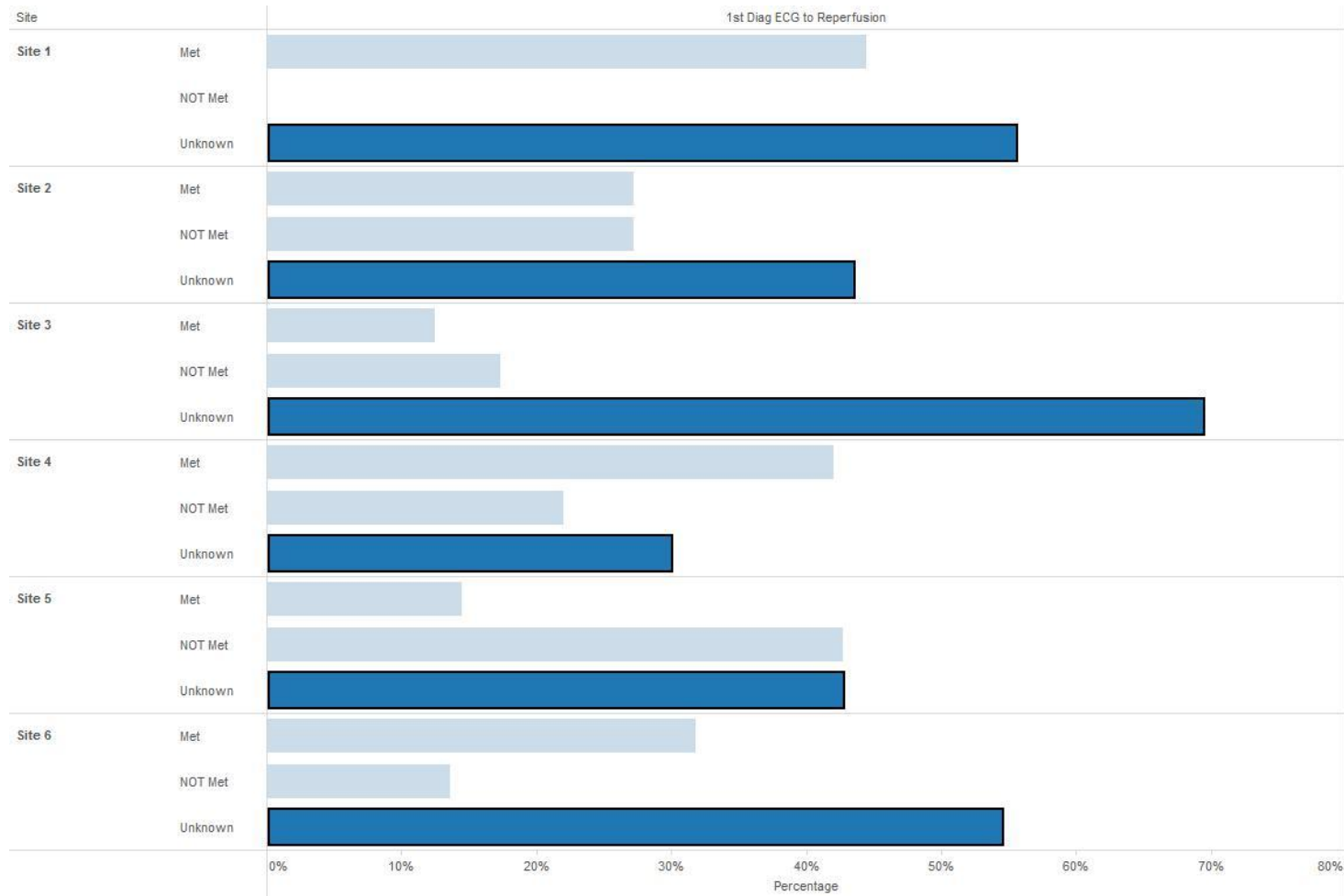
2. Opportunities for linkages

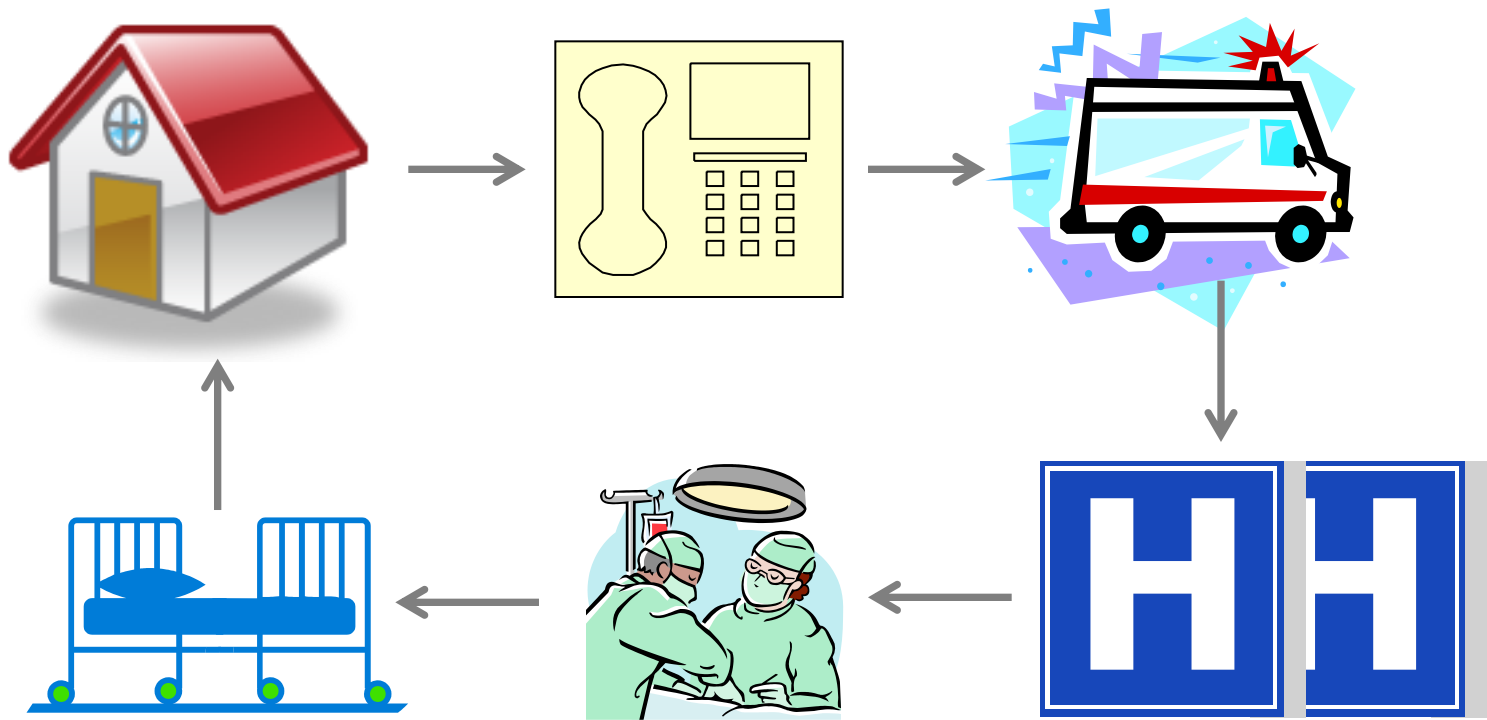
- Improve clinical data quality
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Qld Cardiac Performance Metrics

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CI2 Tableau (fictitious data)





- Queensland Ambulance Service
- Health Statistics Unit
- Cardiac Clinical Informatics Unit

National reporting

AUSTRALIAN COMMISSION
ON SAFETY AND QUALITY IN HEALTH CARE

TRIM: 90512

**Consultation Draft:
Clinical Care Standard for
Acute Coronary Syndrome**

December 2013



Clinical Care Standards for ACS

Clinical Care Standard for Acute Coronary Syndrome*

- 1 A patient with acute chest pain or other symptoms suggestive of an acute coronary syndrome receives a 12-lead electrocardiogram (ECG) and the results are interpreted by an ECG-qualified clinician within 10 minutes of first emergency clinical contact.
- 2 A patient with an acute ST segment elevation myocardial infarction (STEMI), for whom emergency reperfusion is clinically appropriate, receives primary percutaneous coronary intervention (PCI) or thrombolysis within time frames recommended by the current National Heart Foundation of Australia/Cardiac Society of Australia and New Zealand Guidelines for the Management of Acute Coronary Syndrome.
- 3 A patient presenting with acute chest pain or other symptoms suggestive of an acute coronary syndrome receives care guided by an evidence-based clinical pathway.
- 4 A patient admitted to hospital with a non-ST segment elevation acute coronary syndrome (NSTEMACS) is managed based on a documented, evidence-based assessment of their risk of major adverse cardiac events.
- 5 The role of coronary angiography with a view to appropriate coronary revascularisation is considered and discussed with a patient with a non-ST segment elevation acute coronary syndrome (NSTEMACS) who is assessed to be at intermediate or high risk of an adverse cardiac event.
- 6 Before a patient with an acute coronary syndrome leaves the hospital, they are involved in developing an individualised care plan that identifies the lifestyle modifications and medicines they should take to manage their risk factors, addresses their psychosocial needs and includes a referral to a cardiac rehabilitation program that is appropriate for them. This plan is also provided to the patient's general practitioner.

Examples of data linkages

1. Current linkages

2. Opportunities for linkages

- Improve clinical data quality

- Operational reporting

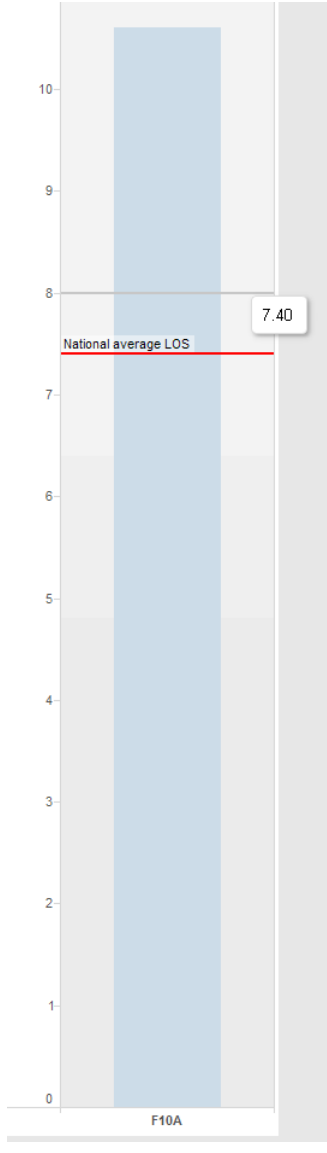
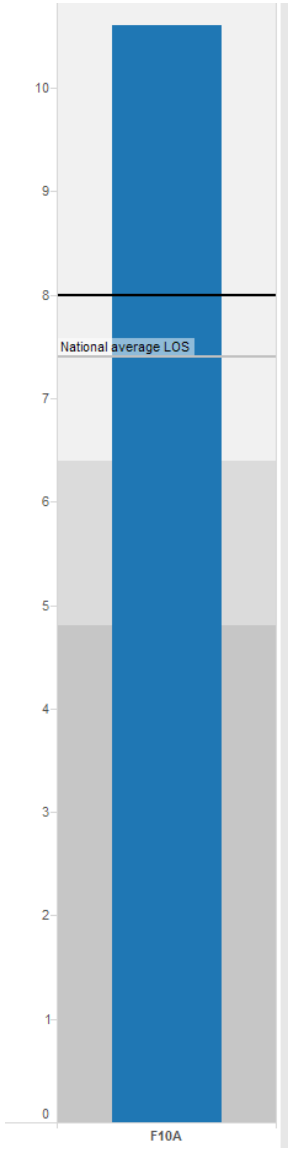
Example 3. Health Roundtable

F10 Interventional Coronary Procedure + AMI + CCC

F10 - INTERVENTIONAL CORONARY PR+AMI | Jul 2013 - Jun 2014

ALOS at [red circle] is 5.2 days, 45% more than the 4 exemplars' weighted average at 3.6 days





View Data: F10 B LOS

173 Show aliases Show all fields

Admission Date	Admission DRC Code	Admission Source	Cohort ID	Date of Lab Visit	Discharge Date	DOB	DRG Code	F
1/01/2014	F10B	Inpatient - Cardiology	1	2/01/2014	6/01/2014	28/07/1953	Null	€
2/01/2014	F10B	Inpatient - Cardiology	2	2/01/2014	6/01/2014	26/04/1957	Null	€
3/01/2014	F10B	Inpatient - Cardiology	5	3/01/2014	6/01/2014	3/07/1945	F10B	€
3/01/2014	F10B	Inpatient - Cardiology	8	3/01/2014	6/01/2014	24/03/1966	Null	€
5/01/2014	F10B	Inpatient - Cardiology	17	7/01/2014	8/01/2014	22/02/1963	Null	€
5/01/2014	F10B	Inpatient - Cardiology	19	7/01/2014	8/01/2014	15/08/1964	Null	7
6/01/2014	F10B	Inpatient - Cardiology	22	7/01/2014	10/01/2014	21/10/1956	F15A	7
6/01/2014	F10B	Inpatient - Cardiology	30	8/01/2014	10/01/2014	27/05/1967	F10B	4
6/01/2014	F10B	Inpatient - Cardiology	34	9/01/2014	10/01/2014	27/05/1967	F10B	4
10/01/2014	F10B	Inpatient - Cardiology	39	10/01/2014	13/01/2014	3/05/1973	Null	7
15/01/2014	F10B	Inpatient - Cardiology	57	16/01/2014	21/01/2014	20/10/1944	Null	€
15/01/2014	F10B	Inpatient - Cardiology	58	16/01/2014	20/01/2014	15/12/1973	Null	7
14/01/2014	F10B	Inpatient - Cardiology	59	17/01/2014	18/01/2014	20/07/1974	Null	4
15/01/2014	F10B	Inpatient - Cardiology	66	20/01/2014	21/01/2014	20/10/1944	Null	€
15/01/2014	F10B	Inpatient - Cardiology	68	20/01/2014	20/01/2014	15/12/1973	Null	7
18/01/2014	F10B	Inpatient - Cardiology	72	21/01/2014	24/01/2014	14/03/1962	Null	€

Summary Underlying 173 rows

CARDIAC CATHETER LABORATORY

Queensland Government

PROCEDURE REPORT

Patient Name: CE
 UR Number: Age:
 DOB: Height: 175cm Hospital Insurance: Public
 Gender: Weight: 57kg Admission Status: Inpatient - Cardiology
 Procedure Date: Referring Doctor:
 Admission Number: Referring Doctor:
 Referring Doctor:

Admitting Cardiologist:
 Consultant:

PROCEDURES
 • Coronary Angiography
 • 2 or more Stents into multiple Coronary Arteries

INDICATIONS
 Referred for an urgent procedure for:
 • NSTEMI

TECHNIQUE/APPROACH
 Right Femoral artery 6 FR 10cm sheath

PROCEDURAL MEDICATIONS

Generic Name	Qty or Strength	Route	Administered
Midazolam	2 mg	IV	23/01/2014 13:05:11
Furosemide			
Lignocaine	8 ml	S/C	23/01/2014 13:07:45
Heparin	10000 IU	IA	23/01/2014 13:09:50
Glyceryl trinitrate	200 micrograms	IA	23/01/2014 13:11:17
Glyceryl trinitrate	200 micrograms	IA	23/01/2014 13:36:55
Midazolam	1 mg	IV	23/01/2014 13:42:04
Glyceryl trinitrate	200 micrograms	IA	23/01/2014 13:51:14
Glyceryl trinitrate	200 micrograms	IA	23/01/2014 13:56:38
Abciximab	12.5 ml	IV	23/01/2014 14:03:05
Morphine	2.5 ml	IV	23/01/2014 14:06:06
Metoprolamide hydrochloride	10 mg	IV	23/01/2014 14:07:33
Glyceryl trinitrate	200 micrograms	IA	23/01/2014 14:26:03
Glyceryl trinitrate	200 micrograms	IA	23/01/2014 14:38:04
Glyceryl trinitrate	200 micrograms	IA	23/01/2014 14:39:15

CONTRAST
 Type of Contrast Used: Iohexal (Omnipaque) 350
 Batch Number:
 Contrast in ml: 260

The whole truth relies on

1. Quality data
2. The right data

Thank you

Dr Jillian Milne BAppSc(Hons), GDipEd, MNutrDiet, PhD, CHIA (Certified Health Informatician Australasia)

Statewide Cardiac Clinical Informatics Manager

Cardiac Clinical Informatics Unit

Queensland Health | Queensland Government

Level 6, Block 7 | Royal Brisbane & Women's Hospital

Herston Road, Herston QLD 4029

P: (07) 3646 3577

M: 0427 156163

jillian.milne@health.qld.gov.au



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