

STOP Project

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The Sutherland Hospital STOP Project Team



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A patient with metastatic breast cancer was noted to have thrombocytopenia.

A iron studies level was ordered by the registrar for “completeness” and the patients ferritin was markedly elevated.

The Consultant was unsure of the significance of the result, which led to a bone marrow biopsy.

The bone marrow biopsy did not change the treatment plan for the patient and she died from her disease 3 days post procedure.



2014

- We knew:
 - The quality and volume of pathology had been unmeasured and unquestioned for some time
 - There was harm associated with pathology
 - There was waste
- We didn't know:
 - How big 'the problem' was
 - How to define 'inappropriate ordering'
 - How would we could minimise waste while ensuring clinically relevant tests were not affected



Sensible Test Ordering Project

Excessive utilisation of pathology impacts:

- Increased risk of harm
- Increases workload
- Decreases test turn-around time
- Increases healthcare costs
- Increased diagnostic blood loss- iatrogenic anaemia
- Risk of pursuing irrelevant results delaying management or discharge of both



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What did we do?

- Appointed a STOP Project Officer- developed a plan linked to the LHD Road Map to Excellence
- Looked at the data
 - Ten tests accounted for 80% of the cost
 - There was obvious low hanging fruit
- Identified high volume users
 - Who knew where there was waste and potential harm
 - Who wanted to change practice
- Created a flexible multi-intervention strategy which was driven by local stakeholders



What did we do?

- Each specialty identified high frequency tests which were ordered:
 - Inappropriately
 - Too frequently
 - Not frequently enough
- Consensus opinion was that JMO's, registrar's, nurses ordered:
 - 'Just in Case'
 - Not necessarily what was clinically indicated 'a full set'
 - What they thought the boss wanted

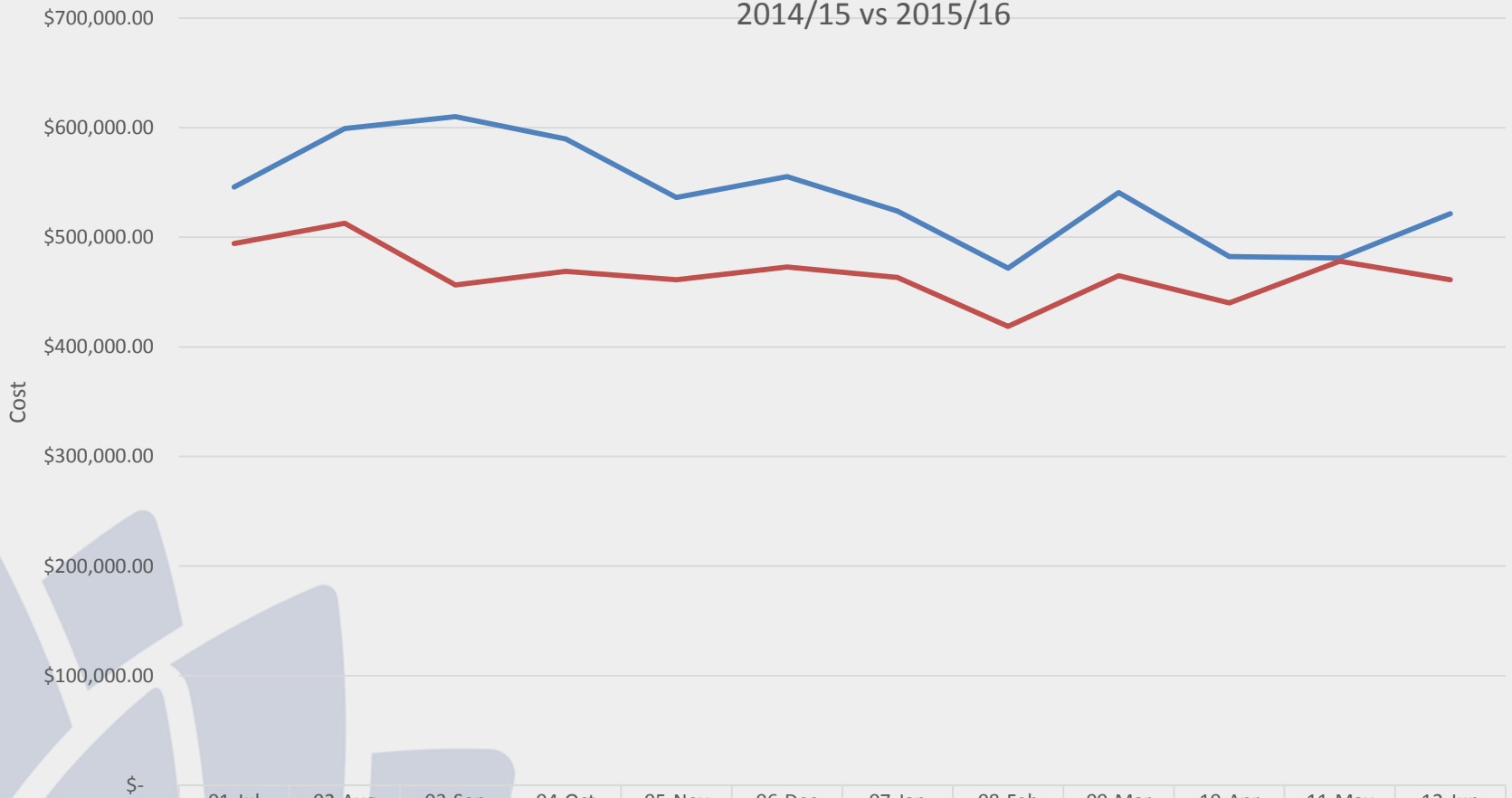


Top Ten Test Reduction

Top Ten Tests (by volume)	FY14-15	FY15-16	% Decrease in volume
Admin Fee	78801	74136	6%
Full Blood Count	43680	38536	12%
Electrolytes (EUC)	42112	37050	12%
Liver Function Tests	18559	13857	25%
Comprehensive Metabolic Panel (CMP)	18618	13565	17%
CRP	15519	11109	18%
Coagulation Profile	10890	6562	40%
Troponin	8133	5421	34%
Urine Microscopy and Culture	6573	5726	13%
Blood Gas (venous and arterial)	8197	7338	12%
Grand Total	250188	208853	17%



Sutherland Hospital: Total Cost per Month 2014/15 vs 2015/16



	01-Jul	02-Aug	03-Sep	04-Oct	05-Nov	06-Dec	07-Jan	08-Feb	09-Mar	10-Apr	11-May	12-Jun
— FY14-15	\$545,817.	\$599,315.	\$610,149.	\$589,776.	\$536,383.	\$555,273.	\$523,983.	\$471,756.	\$540,810.	\$482,376.	\$481,086.	\$521,538.
— FY15-16	\$494,384.	\$512,769.	\$456,525.	\$468,970.	\$461,240.	\$472,913.	\$463,427.	\$418,762.	\$464,921.	\$440,114.	\$478,246.	\$461,141.

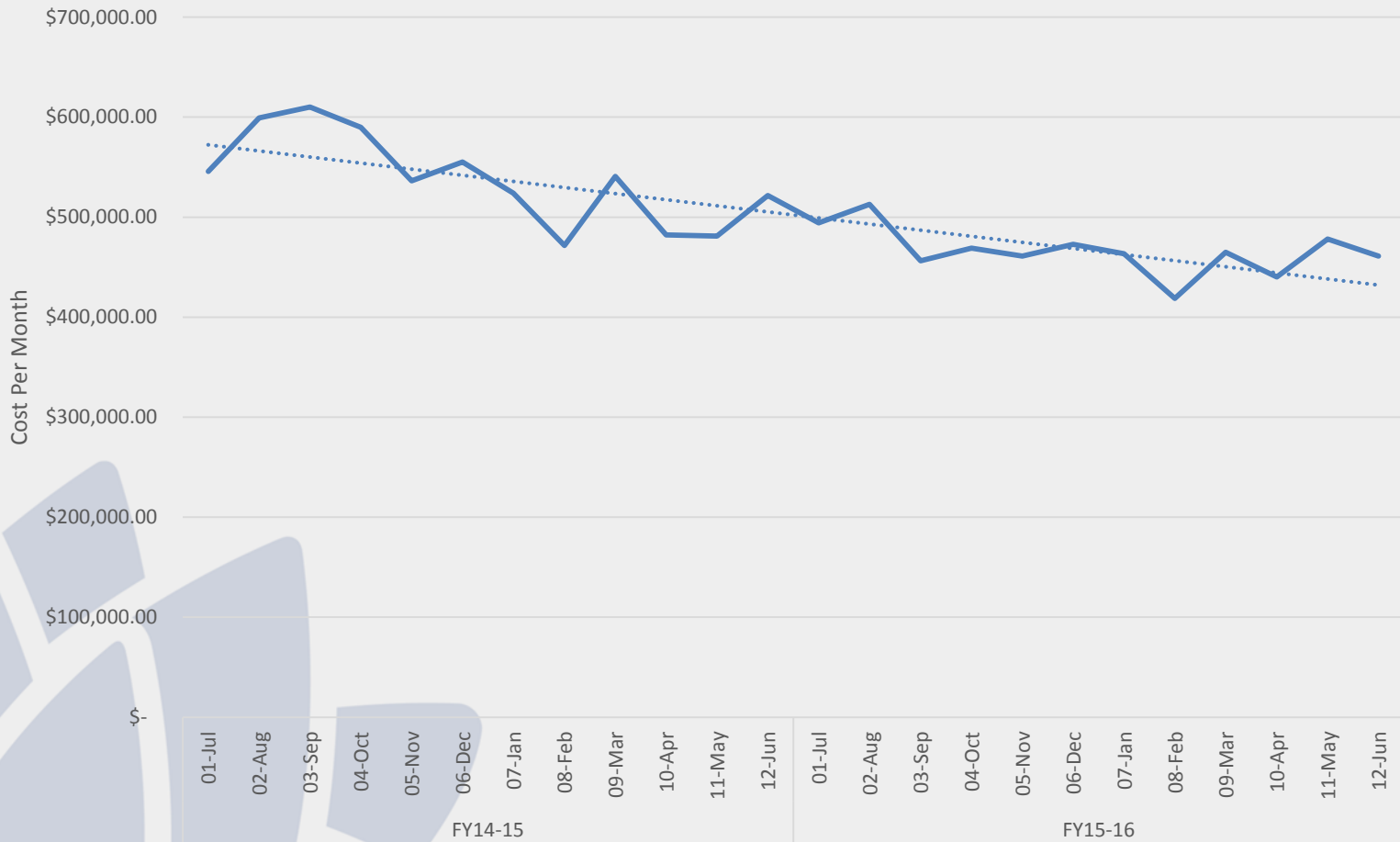


STOP Outcomes

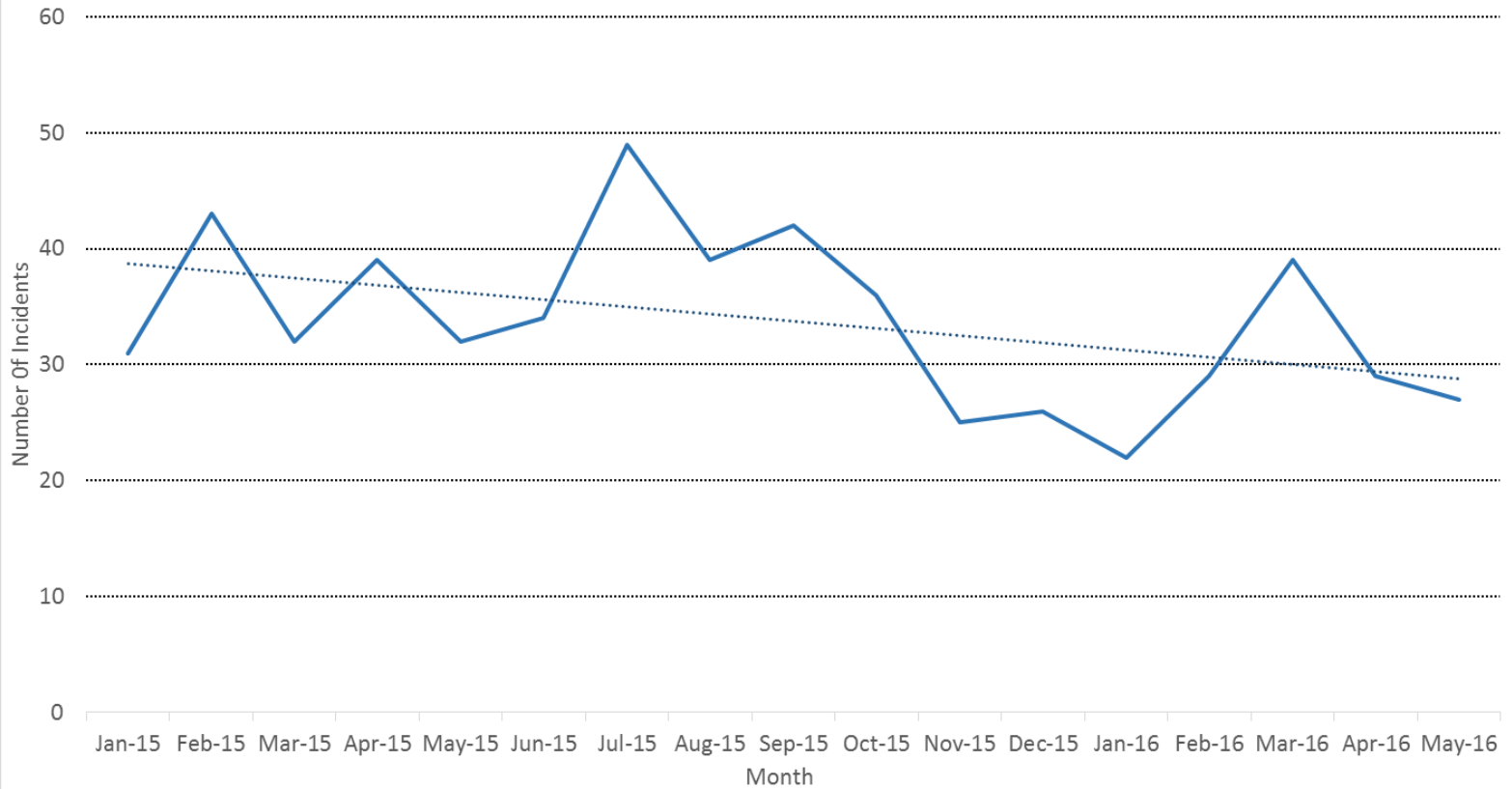
- 15% reduction in overall pathology
- TSH
 - \$250,000.00 reduction in 2014/15
 - \$741,000.00 additional reduction in 2015/16
 - \$138,000 2016/17 YTD
- 6% reduction in overall specimen collection
- Refined ordering practices and clinical order sets in ICU & ED
- Engagement with Junior Medical Staff in minimising harm
- Development of cohesive strategy which is applicable to all facilities across the state
- Expansion of Project Across the LHD



Sutherland Hospital: Test Cost/Month Trend July 2014 - June 2016



Sensible Test Ordering Project: Pathology Related IIMS TSH



NSW Health South Eastern Sydney Local Health District ORBiI

Sensible Test Ordering Practice

Data Until: 30/09/2016
Last Reloaded: 30/09/2016
Next Reload: 01/10/2016

Version: v0.1.1 Testing

Glossary Summary Emergency Inpatient Outpatient Comparison Reports Reset

Welcome

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Sensible Test Ordering Practice

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Glossary Summary Emergency Inpatient Outpatient Comparison Reports Reset

Q. Select Facility 2013/14 2014/15 2015/16 Jul Aug Sep Oct Nov Dec Jan Feb Mar Apr May Jun Q Search

Tests/ED presentation	Events/ED presentation	Tests/AP separation	Events/AP separation	Incidents / month	Variance YTD (Actual vs actual)
\$133.28 ↓ -0.49%	\$30.29 ↑ 6.08%	\$164.86 ↓ -3.56%	\$45.26 ↓ -0.30%	tba tba	-\$46,110 ↓ -0.43%

Display period: Sep-15 to Sep-15
Comparison period: Sep-14 to Sep-14

Public pathology trend

Facility Public Pathology YTD Comparison

Raw Cost by Encounter Type

YTD Actual vs Actual (Cost of public tests)

Sensible Test Ordering Project



Key Ingredients For Sutherland Hospital STOP Success:

Target Low Hanging Fruit

- UMCS
- Top 8 tests
- Swap in's (APTT or INR instead of Coagulation Profile, NA or K instead of EUC, HB instead of FBC)
- Privately referred non-inpatient/Outpatient billing

Target High Volume/High Cost Areas

- Emergency Department
- Intensive Care/Critical Care Areas
- Small reductions here account for huge \$5 savings (1 less ABG per patient per day = \$700.00 per week!!)

Collaborate with Key Stakeholders

- Strong Executive sponsorship, in particular a medical sponsor
- Subspecialty intervention must be driven by the clinicians and tailored to their needs
- Find allies for the project.
- Present their data
- Ask them to identify where they think there is waste, only the experts in the field can tell you where there is waste.
- Top down, Bottom up.

Make data Meaningful

- This is a data driven project. Huge volumes of data must be meaningful to the clinicians
- Separate per speciality, per doctor
- Remove Critical Care areas and ED from speciality reports and report these as locations, not within specialities.
- Split data per presentation/separation/OBD (denominator TBC)

eMR

- Work as a district to identify valuable changes in eMR
- Develop appropriate blocks in ordering (create some friction)
- Discuss value of adding price signalling to catalogue
- Develop speciality order sets to sit within EMR

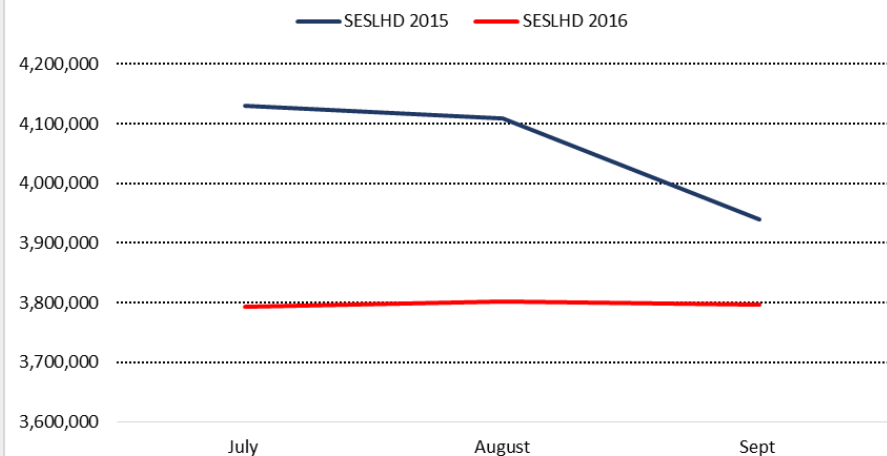


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SESLHD Monthly Pathology Charges



\$804,154 or 6.61% reduction in cost

Facility or Equiv	This Period Actuals	YTD Actuals	YTD Budgets	YTD Variance	Ytd var Sept 2015	YTD PY1 Actuals	\$ Change
POW Hospital	1,352,980	4,022,309	4,098,278	75,969	-691,789	4,304,254	-\$ 281,945
Royal Hospital For Women	255,510	828,086	713,896	-114,190	-94,947	774,465	\$ 53,621
Sydney Hospital	136,891	410,367	380,685	-29,682	-77,785	438,375	-\$ 28,008
St George Hospital	1,421,619	4,329,622	4,405,354	75,732	-249,529	4,788,085	-\$ 458,463
Sutherland Hospital	533,893	1,592,160	1,521,630	-70,530	47,454	1,720,201	-\$ 128,041
Mental Health SESLHD	86,153	181,785	122,240	-59,545	-20,746	143,103	\$ 38,682
Total SESLHD	3,787,046	11,364,330	11,242,083	-122,247	-1,087,343	12,168,484	-\$ 804,154



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