



B positive about b-HCG

Royal Brisbane and Women's Hospital

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Improving Pathology Services (HRT1720)

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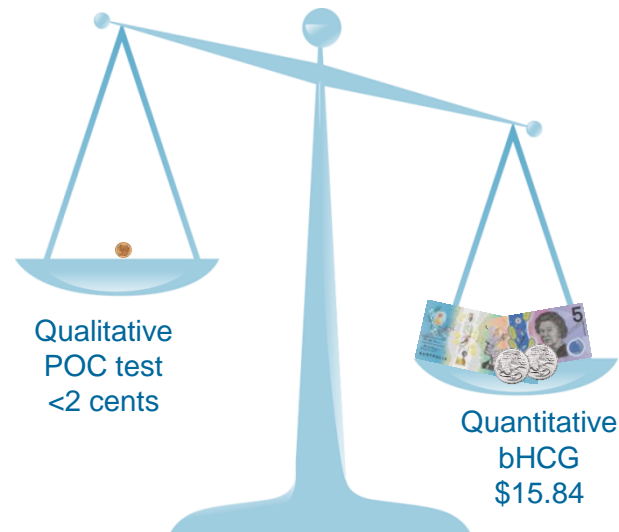


Key Problem

Currently, many female patients with low risk of pregnancy as their clinical presentation receive serum quantitative Beta HCG (bHCG) tests in the RBWH Emergency & Trauma Centre.

These tests contribute to a delay in results that can delay treatment or further investigations.

Duplicate point of care (POC) qualitative tests are often performed on these patients, resulting in unnecessary costs.



Aim of this innovation

This project aims to reduce unnecessary quantitative bHCG ordering by ensuring that urine test is considered as the primary test when a pregnancy screen is required, and reserve quantitative bHCG only in cases of high suspicion of early pregnancy or confirmed early pregnancy when the quantitative level is required to specifically assist in clinical decision making.

With a saving of \$15.82 per avoided test, this will provide a cost benefit of \$5037 per month (\$60,445 over 12 months).

Baseline Data

	Oct-16	Nov-16	Dec-16	Jan-17	Feb-17	Mar-17	Avg.
Total # quantitative bHCGs requested	546	591	561	638	510	555	567
Negative results #	417	457	436	478	377	419	431
Negative results %	76%	77%	78%	75%	74%	75%	76%


Key Changes Implemented

- Clinical change champions engaged
- New ward test urine documentation sheet introduced so that POC bHCG test results can be recorded in patient chart
- POC cartridges now available in IV trolleys for easy access
- Pathology form updated so that quantitative bHCG can only be requested as an add-on

Key Changes Implemented

- Education campaign – posters, in-services


Avoid delays when screening for pregnancy



**Urine 3 mins to result
Blood 6 mins to result
Cost = 2 cents**


VS

**40 mins to result
Cost = \$15.84**




NB: For any patient with clinical signs or high suspicion for ectopic do a serum quantitative B-hCG.

Be positive before you add B-hCG to bloods




NB: For any patient with clinical signs or high suspicion for ectopic do a serum quantitative B-hCG.

Did you know that point of care B-hCG testing can be done on urine and blood?



TAKES 3 MINS
Sensitivity 99% > 20mIU/mL
(Alere hCG combo cassette)



TAKES 5 MINS
Sensitivity 99% 10mIU/mL serum
(Alere hCG combo cassette)

Outcomes so far

- So far we have only implemented 2 initiatives to help with the improvement of bhcg quantitative testing, department champions and poster education.
- We are due to roll out our pathology form revision this week.
- We have already seen on average 34% total reduction in Quantitative bhcg requested with a small reduction in the negative results.

	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Avg.
Total # quantitative bHCGs requested	423	365	394	349	329	372
Negative results #	321	264	268	249	211	282
Negative results %	76%	72%	68%	71%	64%	70%
Total reduction of bhcg requested from base average.	25%	35%	30%	38%	42%	34%



Lessons Learnt

- Simple review of current practice and review of certain pathology can uncover barriers in practice and process that lead to over resourcing of certain investigations.
- By reviewing simple tests that we often utilise for ease and by evaluating the way we work can help change our environment to make other easier forms of testing more readily available.
- With review of practice we can save time to results, which then can lead to more efficient clinical care as well at times save valuable money.
- Through commencing this project we have found huge benefit in simple recruiting of staff champions who can help with disseminating and educating about clinical quality initiatives.
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