Using a knowledge translation approach to increase testing in a primary health setting of patients at risk of hepatitis B

Jacqui Richmond
NHMRC Translation of Research into Practice (TRIP) Fellow
La Trobe University and Melbourne Health

1st October 2016

Overview

- What is knowledge translation?
- Chronic hepatitis B in Australia
- Evidence-practice gap
- Aim of the project
- Project interventions 1 to 7
  - Results

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Knowledge translation

- On average it takes 17 years for research to be implemented into practice[1]
- Knowledge translation
  - From bench (basic science) to bedside (clinical research)
  - Clinical research to clinical practice
    - Clinical guidelines
  - Dissemination and implementation of research for system-wide change

[1] Balas EA, Boren SA. Managing clinical knowledge for health care improvement. In: Bemmel J, McCray AT, editors. Yearbook of Medical Informatics 2000: Patient-Centered Systems. Stuttgart, Germany; 2000:65-70.

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Chronic Hepatitis B in Australia

- Chronic hepatitis B (CHB) is a significant public health issue globally
  - Best practice guidelines show that mortality is significantly reduced if CHB is diagnosed early, managed and treated
- National Hepatitis B Strategy 2014-17 supports primary care staff to monitor and manage CHB
- Nurse-led services lead to improved outcomes for patients with chronic disease

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Evidence-practice gap

- Allard et al. (2015)[2] reported:
  - 44% of Australians living with CHB have not been diagnosed
  - 5% (11,000 people) currently receive antiviral treatment (needs to increase x 3)
  - 13% currently access clinical care
- Multiple barriers including patient, physician, organisational and disease-related factors

[2] Allard NL, MacLachlan JH, Cowie BC. The cascade of care for Australians living with chronic hepatitis B: measuring access to diagnosis, management and treatment. Aust N Z J Public Health. 2015 Jun;39(3):255-9.

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Aim of the project

- To address the gap between **optimal and current** management of CHB through implementation of a **nurse-led service** in a high hep B prevalence area of Melbourne, Victoria.
  - Build organisational capacity
  - Specifically target:
    - improved screening of people at risk
    - follow up and management of people with CHB.

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Project initiation

- Establish Memorandum of Understanding between Melbourne Health and cohealth
- Seek ethics approval
- Convene project advisory committee
  - Infectious Diseases Physician
  - Hepatology CNC
  - Nurse lead at cohealth
  - Regional Practice Manager, cohealth
  - Consumer representation – Hepatitis Victoria

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Project context

- Collingwood situated in (Inner north west Medicare Local) site
  - 10th highest CHB prevalence area in Australia
- Collingwood site patient demographic data 2014 (n=4,500):
  - Country of birth – Australia, Greece, Ethiopia, China, Viet Nam, Somalia, Italy and Sudan
    - 7-9% CHB prevalence

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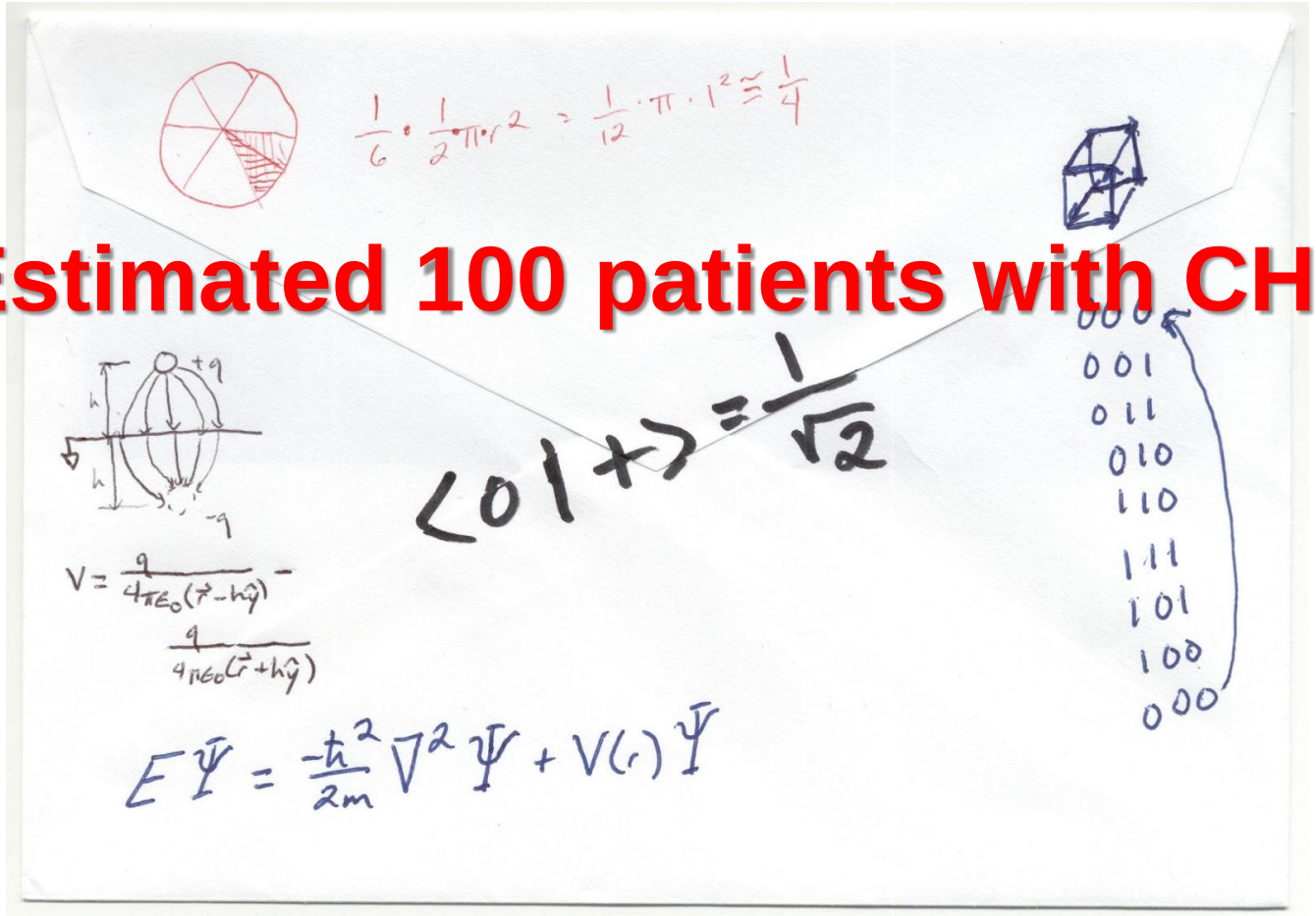
Estimated 100 patients with CHB



Project interventions

- Intervention 1: Baseline audit
  - Of the electronic patient records to identify number of patients with CHB and adherence to clinical guidelines
- Intervention 2: Identify barriers and enablers to adherence to clinical guidelines
  - Focus group with GPs and nurses
  - Survey of patients with CHB

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Results: Intervention 1

- 13 patients with CHB identified
  - 7 of 13 patients cared for by specialist services
    - Co-morbidities reason for hospital-based care
  - 4 patients lost to follow up ? Moved out of the area?
  - Unable to contact a further 2 patients

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Results: Intervention 2

- Consumer consultation
  - Very low number of patients with CHB accessing care at the project site
  - Perceived stigma was a barrier to recruitment
- Health professional consultation (June15)
  - 3 community health nurses, 4 GPs
    - Lack of knowledge and confidence
    - Lack of correspondence with tertiary services
    - Nurse-led service would help build hepatitis B capacity

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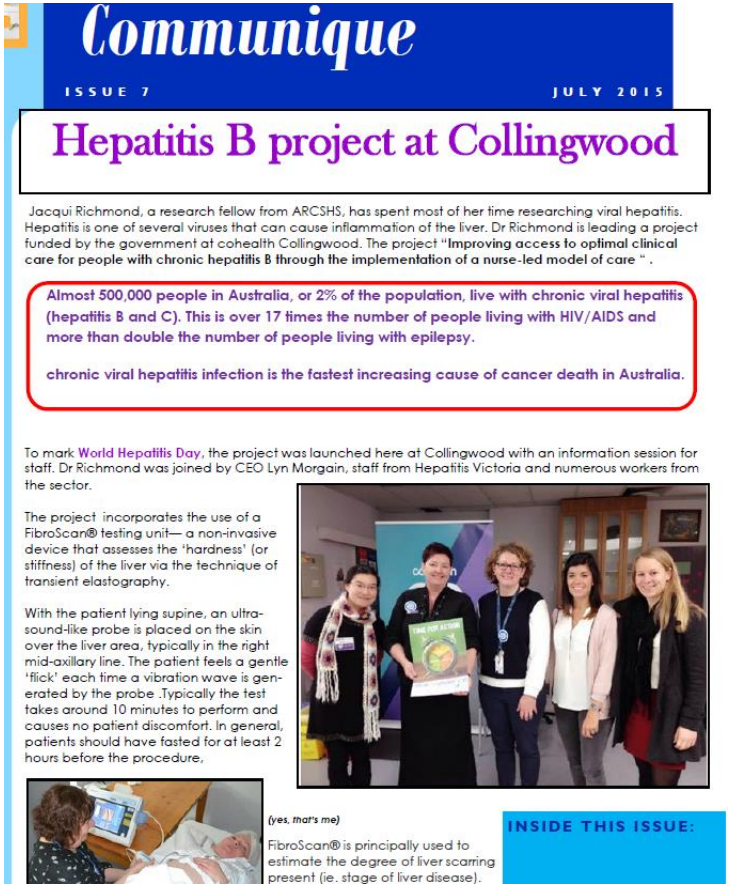
Launch of the project – July 2015



Communique

ISSUE 7 JULY 2015

Hepatitis B project at Collingwood

Jacqui Richmond, a research fellow from ARCSHS, has spent most of her time researching viral hepatitis. Hepatitis is one of several viruses that can cause inflammation of the liver. Dr Richmond is leading a project funded by the government at cohealth Collingwood. The project "**Improving access to optimal clinical care for people with chronic hepatitis B through the implementation of a nurse-led model of care** " .

Almost 500,000 people in Australia, or 2% of the population, live with chronic viral hepatitis (hepatitis B and C). This is over 17 times the number of people living with HIV/AIDS and more than double the number of people living with epilepsy.

chronic viral hepatitis infection is the fastest increasing cause of cancer death in Australia.

To mark World Hepatitis Day, the project was launched here at Collingwood with an information session for staff. Dr Richmond was joined by CEO Lyn Morgain, staff from Hepatitis Victoria and numerous workers from the sector.

The project incorporates the use of a FibroScan® testing unit— a non-invasive device that assesses the 'hardness' (or stiffness) of the liver via the technique of transient elastography.

With the patient lying supine, an ultra-sound-like probe is placed on the skin over the liver area, typically in the right mid-axillary line. The patient feels a gentle 'flick' each time a vibration wave is gen-erated by the probe .Typically the test takes around 10 minutes to perform and causes no patient discomfort. In general, patients should have fasted for at least 2 hours before the procedure,

(yes, that's me)

FibroScan® is principally used to estimate the degree of liver scarring present (ie. stage of liver disease).

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Revised project aims (August 15)

- Implementation of the National Hepatitis B Testing Policy, testing people at risk of hepatitis B:
  - birth in an intermediate/high prevalence country;
  - being an Aboriginal or Torres Strait Islander person;
  - children of women who are HBsAg positive;
  - unvaccinated adults at higher risk;
  - Individual/family history of liver disease or cirrhosis;
  - individual or family history of HCC; evaluation of abnormal LFTs; acute hepatitis;
  - family, sexual or household contact with a person known or suspected to have hepatitis B.

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Project interventions

- Intervention 3: delivery of education
  - targeting GPs, nurses, allied Health Professionals and multicultural health workers
  - Cohealth Consumers

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Results: Intervention 3

- GP champions delivered informal, case-based education sessions for GPs
- Individual meetings with GPs
  - Education; resources; overview of the project
- Education provided
  - Monthly sessions for nurses (3 sessions)
  - Allied HPs and multicultural health workers
  - Community Liaison Advisory Program (CLAP)
  - Vietnamese women's' groups

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Project interventions

- Intervention 4: Audit (pathology) and feedback
  - Quantitative data on GP ordering of hepatitis B diagnostic panel (HBsAg, anti-HBs, anti-HBc)
  - Repeat audits conducted every 3 months:
    - May 2015, December 2015, March 2016, July 2016, October 2016, January 2017

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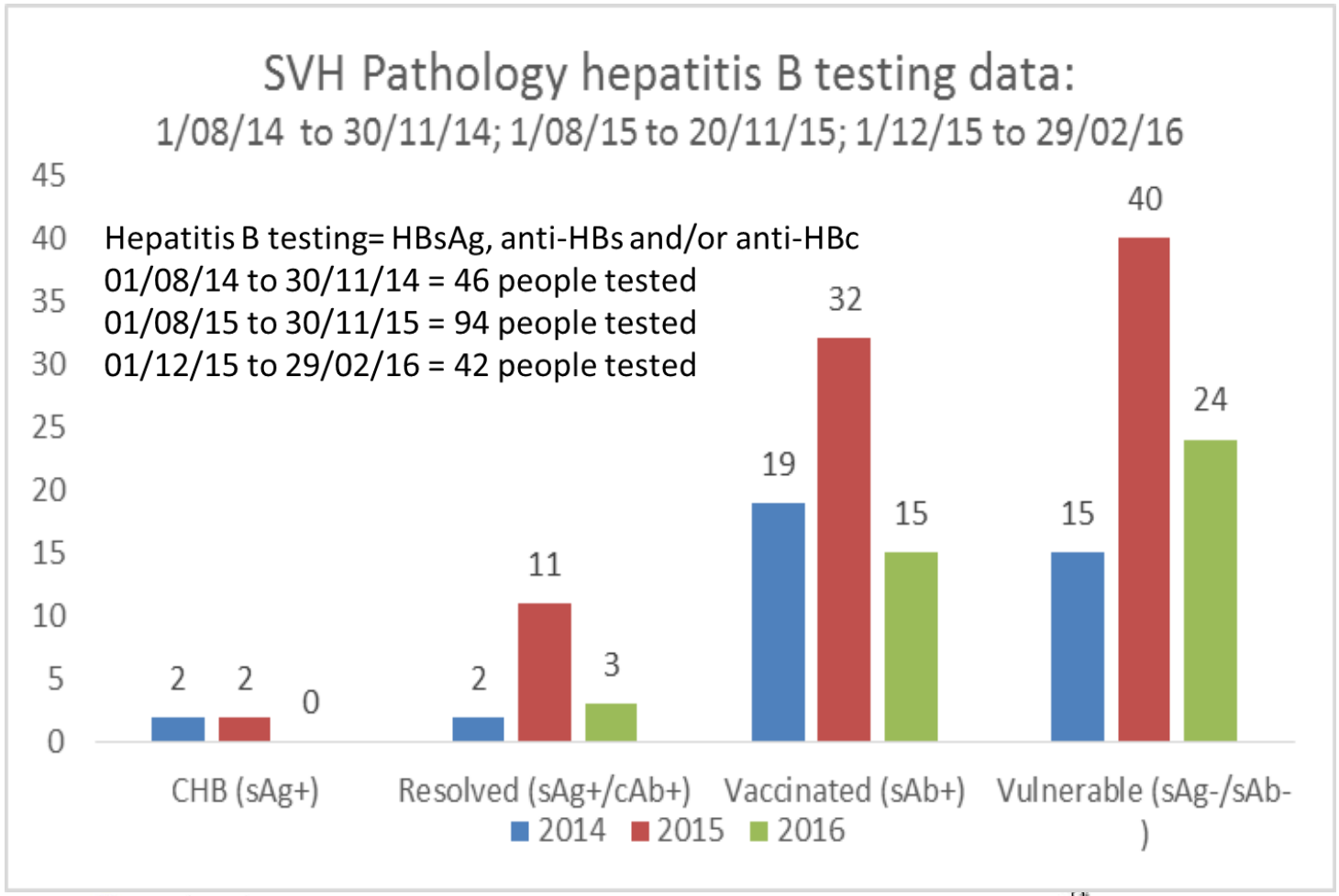

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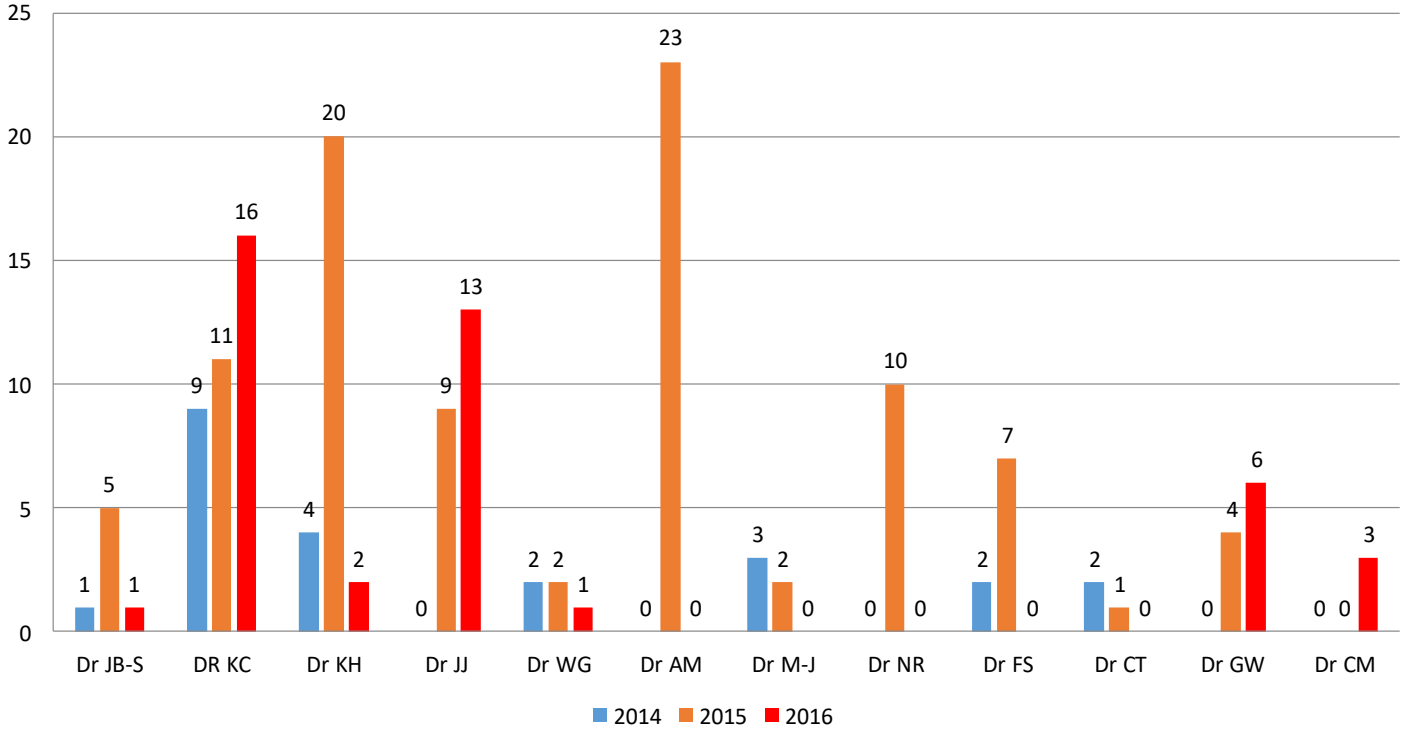
Number of hepatitis B tests ordered according to clinician 1st August to 30th November 2014 and 2015; 1st December to 29th February 2016



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Project interventions

- Intervention 5: Monthly pre-Dr review of patient medical records for risk factors
  - country of birth, family history of liver disease, injecting drug use or men who have sex with men
  - Document recommendations and install ACTION pop up
    - Test
    - Vaccinate

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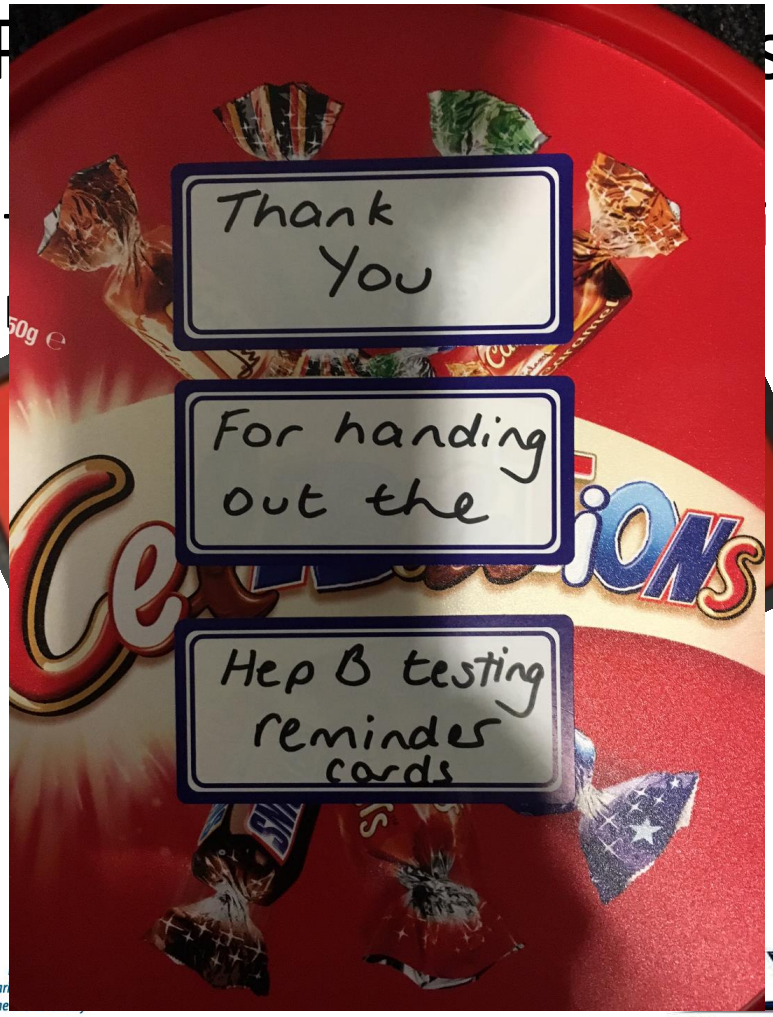
P[illegible]s

- Interven[illegible]s B testing reminde[illegible]
  - May[illegible]



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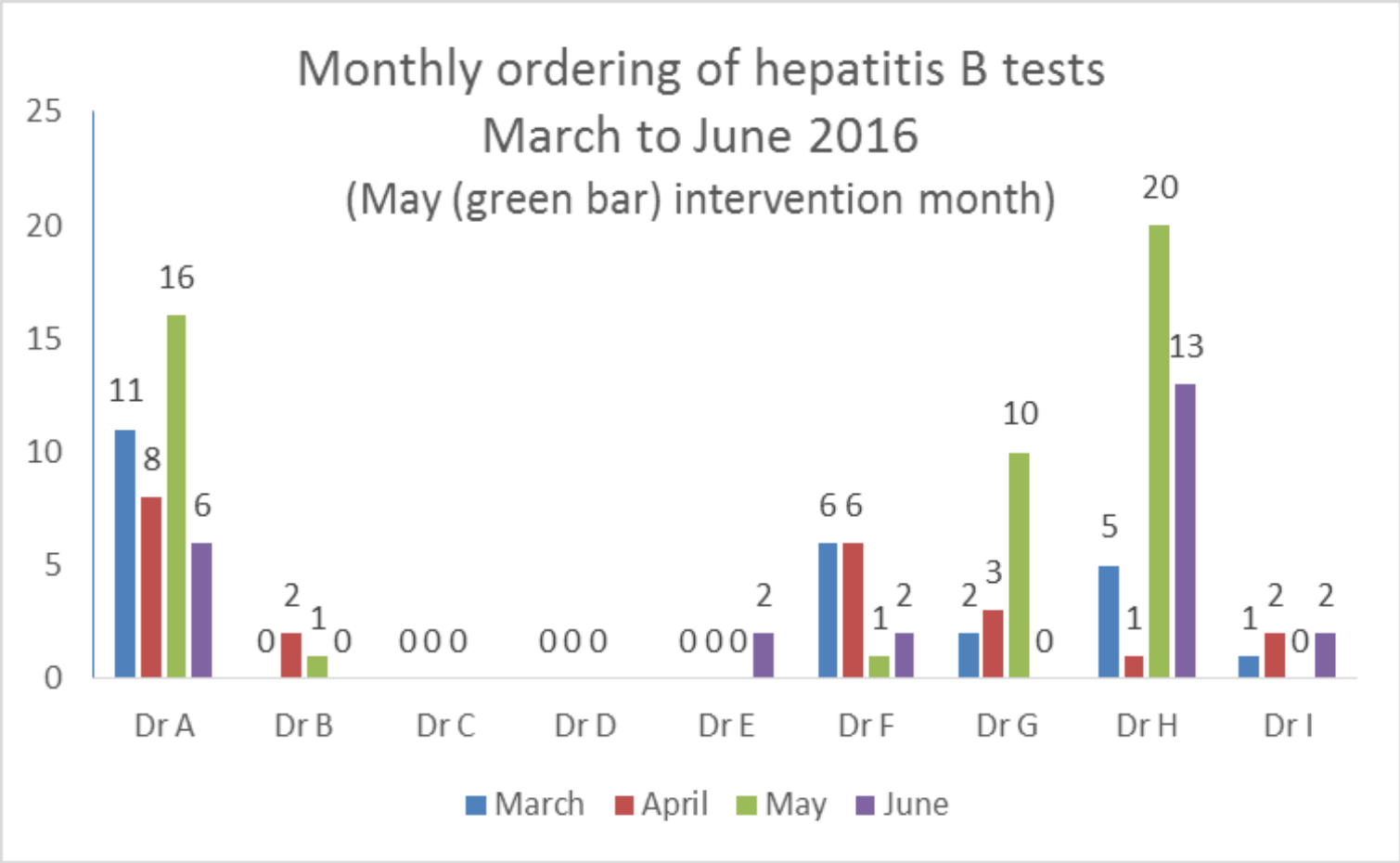

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Project interventions

- Intervention 7: Presentations to GP meetings to discuss project progress
  - 3 monthly presentations at GP meetings
  - Individual meetings with each GP in August and September 2016

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Results

- Latest patient audit - 16 patients with CHB (3 new diagnoses)
  - 9 hospital based care (2 Royal Children's)
  - 3 patients involved in GP-led management
  - Trying to contact 4 patients

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Results

- Hepatitis B vaccination
  - 100% increase in hepatitis B vaccination between 2015 and 2016 (up to 31/08/16)
    - 35 doses ordered in 2015
    - 70 doses ordered between 1/01/16 to 31/08/16

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Results

- Organisational commitment to hepatitis B/viral hepatitis is strong
  - Development of an organisational Viral Hepatitis Strategy & funding submissions

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Conclusion

- Interventions led to change in ordering of hepatitis B serology
  - BUT change does not appear to be sustainable
- Hepatitis B is competing against more obvious and ‘urgent’ health conditions
  - Hepatitis B occurs in people with complex needs
  - GPs are “chronic disease overloaded”
- Sustainability of hepatitis B testing
  - GP and nursing champions
  - Organisation’s commitment to viral hepatitis

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Acknowledgements

- Cohealth staff
  - Dr Kate Coles, Mary Natoli, Virginia Stilizer, Cheryle Abela, Bernadette Sutter, Chantelle Parker, Dr Nicole Allard, Dr Karen Linton
  - Medical and nursing team at Collingwood
- A/Prof Joe Sasadeusz, RMH
- Jack Wallace, La Trobe University
- Members of Advisory Committee

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