

The *Clinical Audit in Viral Hepatitis (CaViH) Project* presents...

Never Fear, Pen CAT is here!

Supporting the screening and management of hepatitis B in primary care

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Overview

- What is Pen CAT?
- Why did we build hepatitis B filters in Pen CAT
- The Working Group
- Implementation phase
- Barriers and enablers
- Next steps

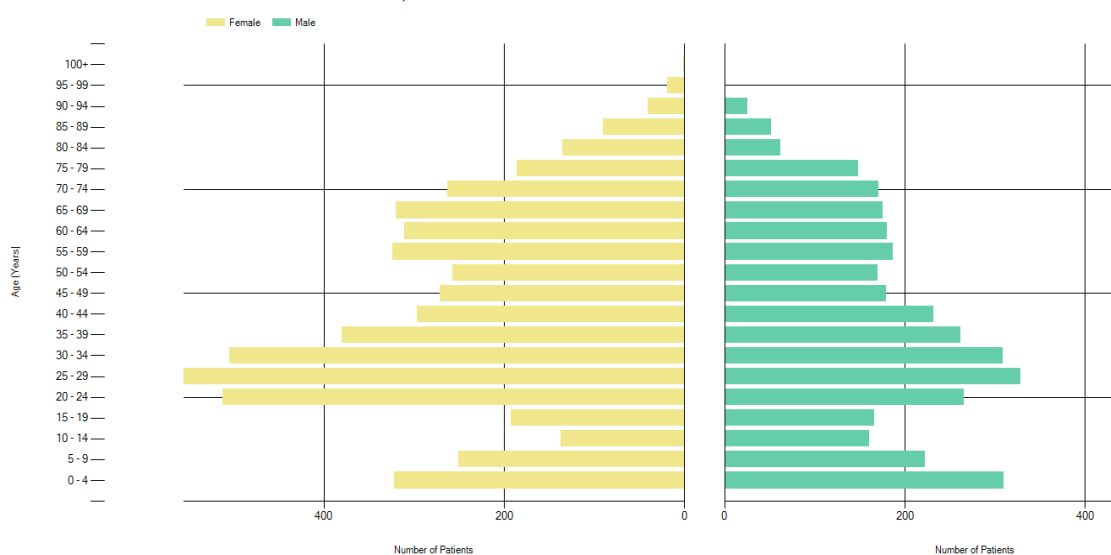
What is Pen Clinical Audit Tool (CAT)?

- Developed by Pen CS, CAT is a Clinical Audit Tool that is used in general practices
- Extracts clinical data from GP software and translates it into statistical and graphical information
- Primary Health Networks (PHNs) provide free licences to general practices in their catchment
- Some examples...

CAT analyses patient data e.g. demographic information

Demographic Breakdown by Age [population = 9069]

Females = 5386, Males = 3621, Other = 62

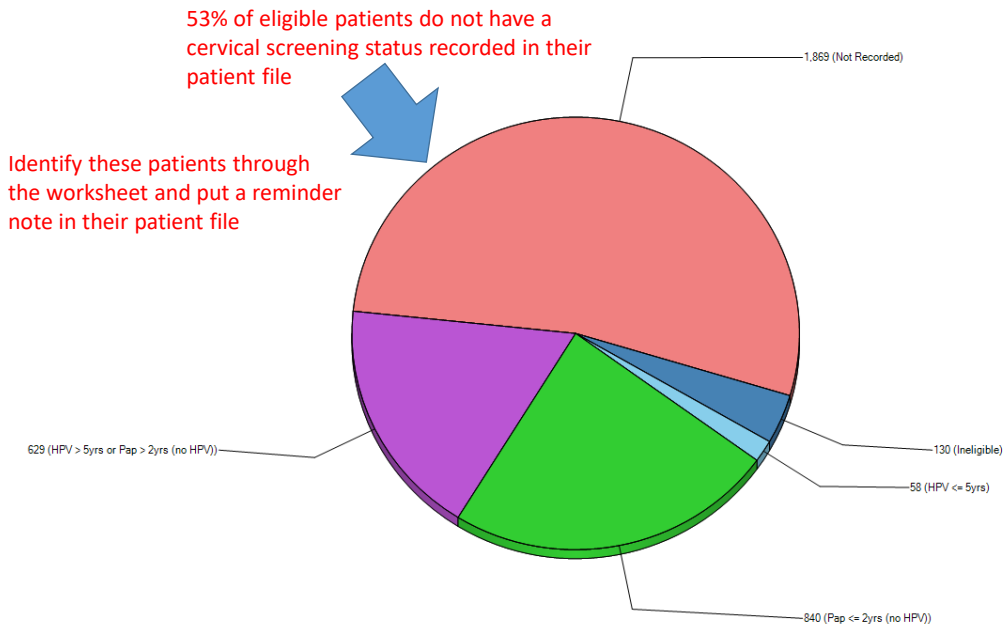


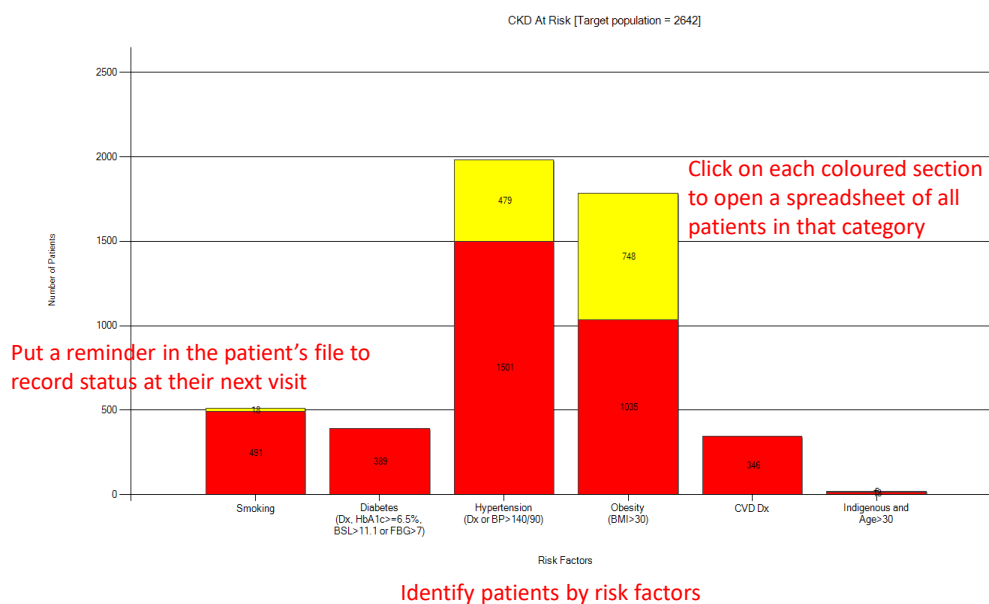
CAT can also:

- Identify missing patient data
- Help clean GP software data = quality improvement model!

Surname	First name	Date of Birth	Sex	Address	Suburb	Postcode	Home Phone	Work Phone	Mobile Phone	Assigned Provider
Sumame	Firstname_0	01/02/1987	M	12 Jogger St	Suburb Town	3736	07 50505050	07 50509999	1234999999	
Sumame	Firstname_1016			12 Jogger St	Suburb Town	5665	07 50505050	07 50509999	1234999999	
Sumame	Firstname_1052	01/12/2011		12 Jogger St	Suburb Town	4817	07 50505050	07 50509999	1234999999	
Sumame	Firstname_1275	01/02/1976		12 Jogger St	Suburb Town	3678	07 50505050	07 50509999	1234999999	
Sumame	Firstname_133	01/02/1993		12 Jogger St	Suburb Town	5771	07 50505050	07 50509999	1234999999	
Sumame	Firstname_1666	01/02/1998		12 Jogger St	Suburb Town	2121	07 50505050	07 50509999	1234999999	
Sumame	Firstname_1823		F	12 John St	Suburb Town	5120	07 50505050	07 50509999	1234999999	
Sumame	Firstname_1859	01/02/1958		12 Jogger St	Suburb Town	3452	07 50505050	07 50509999	1234999999	
Sumame	Firstname_2288	01/02/1981		12 Jogger St	Suburb Town	3456	07 50505050	07 50509999	1234999999	
Sumame	Firstname_2293	01/02/1978		12 Jogger St	Suburb Town	2747	07 50505050	07 50509999	1234999999	
Sumame	Firstname_2304			12 Jogger St	Suburb Town	5522	07 50505050	07 50509999	1234999999	
Sumame	Firstname_2359	01/02/1974		12 Jogger St	Suburb Town	3252	07 50505050	07 50509999	1234999999	
Sumame	Firstname_2371	01/02/1979		12 Jogger St	Suburb Town	3083	07 50505050	07 50509999	1234999999	
Sumame	Firstname_2475	01/02/1932		12 Jogger St	Suburb Town	5679	07 50505050	07 50509999	1234999999	
Sumame	Firstname_2559	01/02/1990		12 Jogger St	Suburb Town	3309	07 50505050	07 50509999	1234999999	
Sumame	Firstname_2601	01/02/1931		12 Jogger St	Suburb Town	3311	07 50505050	07 50509999	1234999999	
Sumame	Firstname_2676		F	12 John St	Suburb Town	3440	07 50505050	07 50509999	1234999999	Surname_1
Sumame	Firstname_2854		F	12 John St	Suburb Town	2349	07 50505050	07 50509999	1234999999	Surname_7
Sumame	Firstname_2889	01/08/2017		12 Jogger St	Suburb Town	2875	07 50505050	07 50509999	1234999999	
Sumame	Firstname_2920		M	12 Jogger St	Suburb Town	2978	07 50505050	07 50509999	1234999999	

Female Cervical Screening Status (Ages 25-74) [population = 3526]





Addressing the need – the evidence

Figure 1: Heat map of CHB prevalence, diagnosis, treatment, and care uptake by Primary Health Network, 2016 (green = lowest; red = highest)

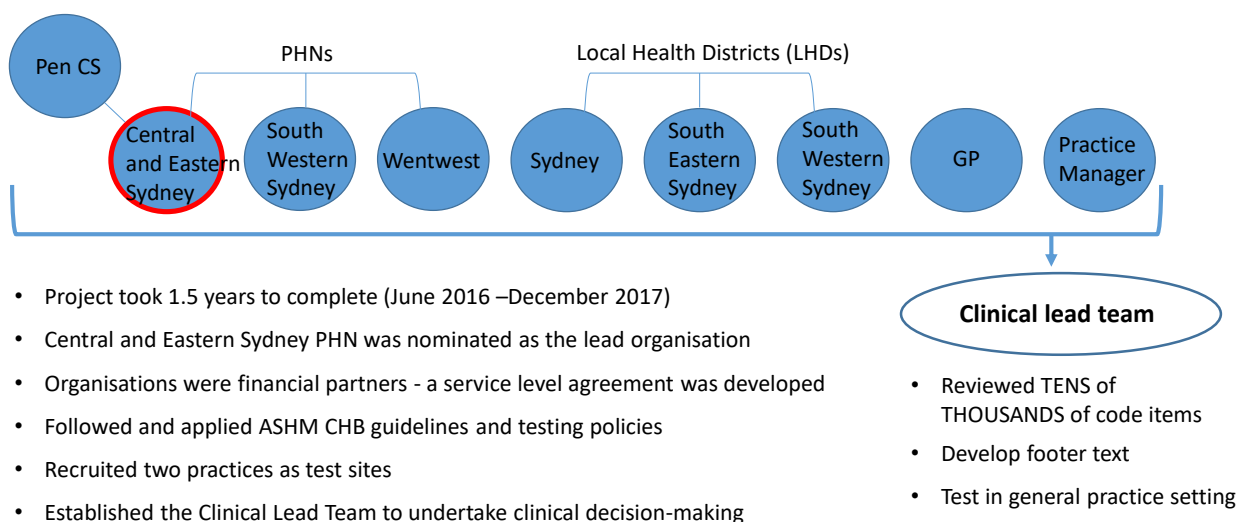
	PREVALENCE	DIAGNOSIS	TREATMENT	CARE
	Proportion of the population living with CHB	CHB notification rate per 100,000	Proportion of people with CHB who received treatment	Proportion of people receiving CHB treatment or monitoring
Northern Territory	1.71%	45.8	4.9%	19.0%
2 nd South Western Sydney	1.47%	55.6	16.6%	36.9%
3 rd Central and Eastern Sydney	1.45%	45.8	10.2%	23.9%
4 th Western Sydney	1.37%	52.5	12.8%	29.5%
North Western Melbourne	1.27%	46.3	8.7%	23.6%
Northern Sydney	1.20%	31.9	10.7%	26.3%
Eastern Melbourne	1.16%	32.8	8.8%	23.1%
National average	0.98%	26.4	7.2%	16.9%

Source: 2016 Fourth National Hepatitis B Mapping Report

Why build new filters in CAT?

- Existing platform used and known in general practices
- General practices submit aggregated de-identified data to PHNs
- Engage and upskill general practice staff about hepatitis B management
- Reduce referrals and wait times at liver clinics
- Facilitate hepatitis quality improvement – eligible for RACGP points and the Practice Incentive Program (PIP) payment
- Local Health District service planning

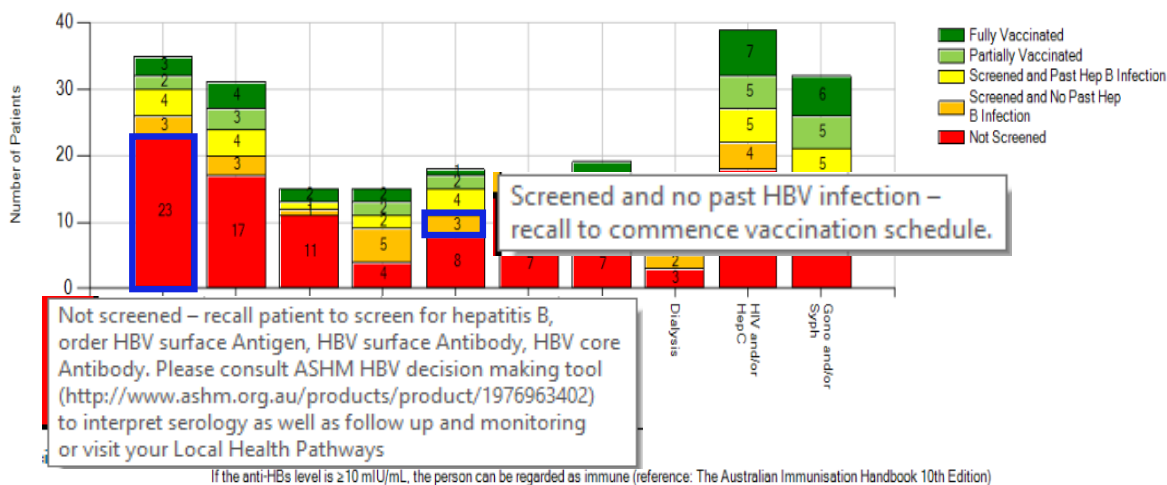
The Working Group



The Screening page

Hep B Screening [population = 160]

Patients with no current Hep B diagnosis and one or more risk factors



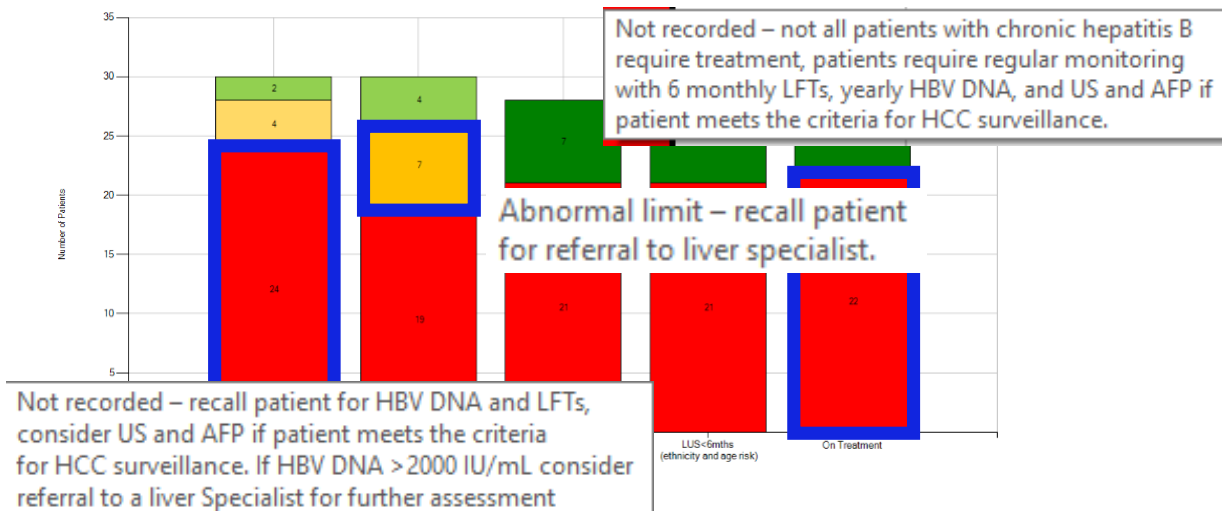
Patient worksheet

ID	Surname	First name	Sex	DOB (Age)	Screening Date	Immunisation Date (Doses)	Ethnicity/ Country of Birth	Indigenous	Pregnant	Liver Disease/ Elevated ALT	Drug Use	Homosexual/ Bisexual (if male)	Dialysis	HIV and/or HepC	Gono and/or Syph
404	Surname	Firstname_7492	F	01/02/1957 (61)	03/07/2015		Australian			ALT:37 07/03/2017, Liver Disease 01/01/2017					
412	Surname	Firstname_3677	F	01/02/1995 (23)			Korean								
416	Surname	Firstname_5520	M	01/02/2011 (7)		22/09/2010 (3)	Somali			ALT:18 11/12/2015					

Management page

Hep B Management [population = 30]

Patients with a past or current Hep B diagnosis



Patient worksheet

ID	Surname	First name	Sex	DOB (Age)	Asian	African	ATSI	HepB	HBV DNA
368	Surname	Firstname_7266	F	01/02/1987 (31)				Y	
3351	Surname	Firstname_4691	F	01/02/1976 (42)				Y	
3933	Surname	Firstname_6100	M	01/02/1945 (73)				Y	24/11/2017
	ALT	Platelets	INR	AFP	L US	Cirrhosis	HIV, HepA, HepC, HepD	Alcohol	On Treatment
	Old result 30 21/07/2017	200 30/12/2017						22/07/2017	20/07/2017
	27 10/08/2017	311 10/08/2017		Old result 2 06/07/2016				12/07/2016	
	17 24/11/2017	127 24/11/2017		2 24/11/2017		01/05/2014		11/08/2016	09/08/2016

In General Practice

- St George Hospital trialled in 1 GP practice. 124 patients with HBV diagnosis. 18 patients identified for recall (raised ALT), 63 message in software practice (LFTs due).
- Royal Prince Alfred trialled in 2 GP practices – 40 patients identified for recall, recommendations provided to practice nurses, message left in practice software for GP to act on

General Practice engagement model

- Community Liver Nurse Consultant
- Education
- Facilitation of the PenCat audit
- Assist with the recall of patients
- Support – GP, practice nurses, practice managers
- In house liver assessment – FibroScan clinic
- Linkage – liver specialist, Liver Clinic referrals and outreach model of care

Barriers

- Data accuracy depends on the information entered and where
- Resource intensive – recommend a dedicated role be out in primary care
- Whole of practice approach – needs a champion driver
- Cannot read PDF pathology results

Enablers

- Any practice (nationally) with CAT will have these CHB filters
- Practice Incentive Program (PIP) Quality Improvement (QI) incentive – data - educate and empower staff
- NSW enhanced funding for HBV initiatives
- Identify at risk patients and screen/vaccinate

Next steps

- CESP HN is creating CHB filters in a similar software platform Polar
- Contact your local PHN and ask if they use PenCAT or Polar (both will have CHB filters)
- CESP HN has just agreed to develop CHB filters in PATCAT (de-identified data submitted to PHNs). Can identify how many patients have been diagnosed with CHB in the practice without physically going into the practice
- Local Health District service planning
- Advocate for FTE role with focus on engaging general practices.

The CaViH Crew

- Hanna Pak
- Phoebe Chomley
- Lisa Dowdell
- Ling Zhang
- Dianne How-Chow
- Tracey Brown
- Darren Hunter
- Megan Ray
- Catherine Stevens
- Janice Prichard-Jones
- Shih-Chi Kao
- Queeny Lau
- Shahana Ferdousi
- Kristen Stone
- Marissa Cappetta
- Grace Bicknell

