

Prepared by Professor Eugene Athan

Director Programme – Sean Jespersen

Business Manager – Leigh Marten

DEPARTMENT OF INFECTIOUS DISEASES ANNUAL REPORT 1.7.2017 – 30.6.2018

Executive Summary and highlights

2017-2018 has been a very busy and productive year for our growing clinical and research team. I wish to personally thank the entire team for their ongoing good work which is putting our patients at the centre of care.

People

- We have some new faces joining our team. In the BRASH clinic Lisa Campbell RN and Dr Mark Farrugia will be regularly supporting the sexual and reproductive health service.
- Inga Tribe RN will be providing regular leave support to the Liver Clinic.
- Dr Alex Tai has been appointed as a VMO in General Medicine and ID and is the Clinical Lead for the Better Care Sepsis Project for BH. Alex completed his ID training at BH and has been a great contributor to all our activities.
- Ms Angela Weerasekera is our new administrative support for the Department.

Service

- With the support of the Medical Services Directorate we now have up to 4 dedicated ID inpatient beds on BX7 to further improve the quality of care we provide our patients with complex infections.
- We have begun the implementation of the Improved Sepsis Management Project. This was funded by Better Care Victoria and will be rolled out across UHG and the McKellar Centre in late 2018. The Project lead is E Athan, the Clinical lead ID Alex Tai and the project officers are Alicia Neels (Senior AMS Pharmacist) and Jemma Trickey (ICU Nurse).
- Following the success of the PrePX trial which included BH providing HIV antiretroviral therapy as
 prevention for high risk individuals, the Commonwealth has provided PBS listing for PREP and this
 is now available through our HIV service.
- Our highly successful regional Hepatitis C access to therapy Model of care led by Dr Amanda Wade has been recognised internationally and the early results published in the Journal of Viral Hepatitis.

Aiming for elimination: Outcomes of a consultation pathway supporting regional general practitioners to prescribe direct-acting antiviral therapy for hepatitis C.

Wade AJ, McCormack A, Roder C, McDonald K, Davies M, Scott N, Wardrop M, Athan E, Hellard ME. J Viral Hepat. 2018 Apr 16.

Research

- On the research front, 2 of our team have recently completed and been awarded PhDs. Dr Amanda Wade in the area of Hepatitis C therapy and Dr Christine Roder in *Clostridium difficile* novel therapy.
- A/Prof. Daniel O'Brien has undertaken a busy sabbatical term working in the areas of Buruli ulcer (BU) in Victoria and Drug resistant TB in PNG.
- Our team were Partners and CIs in the recently awarded NHMRC Partnership grant for BU control
 for \$3million. Partners: BH, CSIRO, DoH and the Uni of Melbourne. This project is underway to help
 identify the potential environmental and behavioural factors causing disease transmission.

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1. Clinical trials Unit

Clinical trials are conducted in collaboration with the Department of Medicine, Clinical Trial Unit, comprising the below roles:

Alana Sarah Clinical Trials Unit Manager (maternity leave)

Bree Sarah Senior Coordinator

Sue Lamb Clinical Trial Coordinator/Bone Densitometry Technologist

Jo Chambers Clinical Research Nurse and Diabetes Educator

Kate Ellis Clinical Research Nurse

The Clinical Trial Unit (CTU) commenced 13 new projects in the 2016/2017 year, with several projects finishing. There are currently 15 projects open in CTU and 161 active participants. The total funding attracted to the unit by these projects was approximately \$500K.

CTU currently has 4.8 FTE with 2 Division 1 nurses (1 is a diabetes educator), 2 Medical Scientists and 1 Nuclear Med Tech / Scientist qualified in bone densitometry. The unit's broad range of skill sets allows for the diversity of the units research and therapeutic areas to be appropriately managed with regards to patient care.

The CTU covers 3 main therapeutic areas of Endocrinology, Infectious Diseases (ID) and Paediatrics (Paeds) Research.

The milestones for the year included the following study and unit achievements.

Study Activity

- Received a 'first site open in country' badge from Janssen for the ROSE study
- The Janssen Metapneumovirus (MPN) study received HREC and governance approval in 20 days which is a huge reflection of our sites efficiency to perform as lead site for these international trials and submit excellent applications as well as having an efficient site team to sign off all the required Governance documents / SSA in a timely manner (these include but are not limited to all investigators, pharmacy, HIS, executive and governance). Janssen currently have the CTU as lead site for Australia on 5 international projects which is great for Barwon Health.

Table 1. Summary of CTU research projects for 2017/2018 including site type, recruitment target and actual number of participants enrolled.

BH Project No.	Short Title	Site Type	No of patient enrolled	Status
16/49	Zoster 056	Lead Site (ID)	31	Ongoing
16/50	Zoster 049	Lead Site (ID)	27	Ongoing
09/27	ZiPP	Single Site (Endo)	8 Interventional 4 observational	Ongoing, National Lead for 7 Australian Sites
14/104	Ertu	Participating Site (Endo)	9	Ongoing
17/04	C.diff	Lead Site (ID)	25	Recruiting



13/76	DECLARE	Collaboration with CRU (Endo)	36	Close out visits occurring
15/79	DELIGHT	Collaboration with CRU (Endo)	1	Added as rescue site April 2017
16/4	JNJ RSV	Lead Site (Paeds / ID)	1	Currently on hold at sponsor request
16/208	JNJ Adult RSV	Participating Site (ID)	0	Recruitment open
17/66	Rainbow	Participating Site (endo)	1	Closing
17/121	ZAFGEN	Participating Site (endo)	8	recruiting
17/70	ITRM	Participating Site (endo)	8	Ongoing
17/71	ITRN	Participating Site (endo)	2	Ongoing
17/220	64041575RSV 2004 (PLUM)	Lead Site (ID / Paeds)	0	On hold
17/221	64041575RSV 2002	Lead Site (ID / Paeds)	0	On hold
18/18	53718678RSV 2004 (ROSE)	Lead Site (ID)	0	Recruiting
18/19	64041575MPN 2001	Lead Site (ID)	0	Recruiting
18/86	VAC18194RS V2002	Lead Site (ID)	0	Submitted to HREC
18/107	SUMMIT	Participating Site (ID)	0	Submitted to HREC
18/73	Zoster 064	Lead Site (ID)	0	Submitted to HREC
TBA	C3671001	Lead Site (ID)	0	HREC submission due Aug 2018
18/01	NOX	Participating Site (endo)	0	Recruiting
18/21	FAME1 Eye Study	Participating Site (endo)	0	Recruiting

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2. Antimicrobial Stewardship Program

Alicia Neels, Antimicrobial Stewardship Pharmacist.

Project officer for the Better Care Victoria Sepsis Scaling Collaboration.

Member of the South West Barwon Antimicrobial Stewardship Service (SWABs).

Project subcommittee member for the Safer Care Victoria/Emergency Clinical Care Network Sepsis Project.

Post Graduate study

Completing a Masters of Public Health/Master of Health Management through University of NSW.

Research

Principal Investigator

Retrospective case matched actual Vancomycin dosing versus predictive dosing using DoseMe® software, BH Project: 17/106.

'R3 S7': A New Paradigm For Antimicrobial Stewardship In General Practice In Australia, BH Project: 15/157

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3. INFECTIOUS DISEASES SERVICE

Infrastructure

Two offices located on Level 7 ID Registrar's Office DHRI L4 Level 2 Outpatient Annexe offices

Human Resources

Director

Professor Eugene Athan

Deputy Director

Associate Professor Daniel O'Brien

Consultants

Associate Professor Andrew Hughes Associate Professor Deb Friedman

Dr Aaron Walton

Dr Amanda Wade

Dr Sarah Huffam

Dr James Pollard

Dr Raquel Cowan

Dr Yvonne Hersusianto

Dr Alex Tai

ID/Micro Registrars

Dr Fabian Chiong

Dr Louise Parry

Dr Caroline Bartolo

ID Fellows

Dr Aaron Bloch

Dr Zohreh Aminzadeh

ID HMO

(By rotation)

Clinical Nurse Consultant for ID Clinic

Judy-Ann Butwilowsky

Personal Assistant

Ms Angela Weerasekera

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Professor Eugene Athan

Conferences

- 1. 18th International Symposium on Staphylococcal Infections, Speaker, Copenhagen, Aug 2018
- 2. "GESA"- ICEG Meeting, Capri Hotel, Brisbane, 7th May 2018
- 3. Sepsis Scaling Collaboration Meeting- Kick Start Workshop, RMH, 21st Feb 2018
- 4. PHN- Sexual Health Update, Invited Speaker, Geelong, 12th Sep 2017
- 5. PHN, Honorarium, Geelong, Dec 2017
- 6. Forbes Oration and Dinner, Austin Hospital, Oct-Nov 2017
- 7. USANZ, Presentation "Gram Negative Resistance: The last Frontier" Albert Park, 21 Nov 2017
- 8. ACIPC, Speaker at International Conference, Presentation, "Infection Control in Endoscopy Consensus Statement on Carbapenemase-Producing Enterobacteriaceae (CPE), Canberra, 22 Nov 2017

Committees

National

HAI ACSQHC
HICSIG ASID
GESA writing group Infection control guidelines for Endoscopy
CARI writing group Infection control in Haemodialysis

State

Infection Clinical Network -DOH
TB DoH

Deakin University and GCEID Research Supervisor

<u>Students</u>

- Christine Roder PhD C difficle novel therapies (Submitted) and burden of cardiac device infections.
- Darcie Cooper PhD Biofilm infections in Prosthetic joints
- Selorm Avemegah PhD M ulcerans serological test
- Carly Botheras PhD Staph aureus virulence
- Rochelle Hamilton PhD Contraceptive choices for HIV infected women
- Andrej Septavc- Staphylococcal biofilm in Dentine an in vitro model.

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Prof Eugene Athan

Publications:

- Curran D, Oostvogels L, Heineman T, Matthews S, McElhaney J, McNeil S, Diez-Domingo J, Lal H, Andrews C, Athan E, Berglund J, Campora L, de Looze F, Korhonen T, Leung E, Levin M, Volpi A, Johnson RW; ZOE-50/70 study group. <u>Quality of Life impact of a Recombinant Zoster Vaccine in adults ≥50 Years of Age.</u> J Gerontol A Biol Sci Med Sci. 2018 Jun 27. doi: 10.1093/gerona/gly150. [Epub ahead of print]
- 2. Koralur M, Singh R, Varma M, Shenoy S, Acharya V, Kamath A, Stenos J, Athan E, Bairy I. <u>Scrub typhus diagnosis on acute specimens using serological and molecular assays a 3-year prospective study.</u> Diagn Microbiol Infect Dis. 2018 Jun;91(2):112-117. Epub 2018 Feb 24.
- 3. J Masters P, J Lanfranco P, Sneath E, J Wade A, Huffam S, Pollard J, Standish J, McCloskey K, Athan E, P O'Brien D, Friedman ND. <u>Health issues of refugees attending an infectious disease refugee health clinic in a regional Australian hospital</u>. Aust J Gen Pract. 2018 May;47(5):305-310
- 4. Wright A, Otome O, Harvey C, Bowe S, Athan E. <u>The Current Epidemiology of Injecting Drug Use-Associated Infective Endocarditis in Victoria, Australia in the Midst of Increasing Crystal Methamphetamine Use.</u> Heart Lung Circ. 2018 Apr;27(4):484-488.
- 5. O'Brien DP, Athan E, Blasdell K, De Barro P. <u>Tackling the worsening epidemic of Buruli ulcer in Australia in an information void: time for an urgent scientific response.</u> Med J Aust. 2018 Apr 16;208(7):287-289.
- 6. Wade AJ, McCormack A, Roder C, McDonald K, Davies M, Scott N, Wardrop M, Athan E, Hellard ME. <u>Aiming for elimination: Outcomes of a consultation pathway supporting regional general practitioners to prescribe direct-acting antiviral therapy for hepatitis C.</u> J Viral Hepat. 2018 Apr 16.
- 7. Commons RJ, Raby E, Athan E, Bhally H, Chen S, Guy S, Ingram PR, Lai K, Lemoh C, Lim LL, Manning L, Miyakis S, O'Reilly M, Roberts A, Sehu M, Torda A, Vicaretti M, Lazzarini PA. <u>Managing diabetic foot infections: a survey of Australasian infectious diseases clinicians.</u> J Foot Ankle Res. 2018 Apr 10;11:13. eCollection 2018.
- 8. O'Brien DP, Friedman ND, McDonald A, Callan P, Hughes A, Walton A, Athan E. <u>Wound healing: Natural history and risk factors for delay in Australian patients treated with antibiotics for Mycobacterium ulcerans disease.</u> PLoS Negl Trop Dis. 2018 Mar 19;12(3):e0006357. eCollection 2018 Mar.
- Holmes NE, Robinson JO, van Hal SJ, Munckhof WJ, Athan E, Korman TM, Cheng AC, Turnidge JD, Johnson PDR, Howden BP; VANESSA study group, on behalf of the Australasian Society for Infectious Diseases (ASID) Clinical Research Network (CRN). <u>Morbidity from in-hospital</u> <u>complications is greater than treatment failure in patients with Staphylococcus aureus bacteraemia</u>. BMC Infect Dis. 2018 Mar 5;18(1):107
- 10. Tai AYC, Athan E, Friedman ND, Hughes A, Walton A, O'Brien DP. Increased Severity and Spread of Mycobacterium ulcerans, Southeastern Australia. Emerg Infect Dis. 2018 Jan;24(1). Epub 2018
- 11. Bender J, Chew R, Lin BB, Athan E. <u>Severe Rhabdomyolysis Associated With RSV.</u> Open Forum Infect Dis. 2017 Dec 22;5(1):273. eCollection 2018 Jan.

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- 12. Macmorran E, Harch S, Athan E, Lane S, Tong S, Crawford L, Krishnaswamy S, Hewagama S. <u>The rise of methicillin resistant Staphylococcus aureus: now the dominant cause of skin and soft tissue infection in Central Australia.</u> Epidemiol Infect. 2017 Oct;145(13):2817-2826.
- 13. O'Brien DP, Friedman D, Hughes A, Walton A, Athan E. <u>Antibiotic complications during the treatment of Mycobacterium ulcerans disease in Australian patients.</u> Intern Med J. 2017 Sep;47(9):1011-1019
- 14. Pericàs JM, Messina JA, Garcia-de-la-Mària C, Park L, Sharma-Kuinkel BK, Marco F, Wray D, Kanafani ZA, Carugati M, Durante-Mangoni E, Tattevin P, Chu VH, Moreno A, Fowler VG Jr, Miró JM; International Collaboration on Endocarditis Microbiology Investigators. <u>Influence of vancomycin minimum inhibitory concentration on the outcome of methicillin-susceptible Staphylococcus aureus left-sided infective endocarditis treated with antistaphylococcal β-lactam antibiotics: a prospective cohort study by the International Collaboration on Endocarditis. Clin Microbiol Infect. 2017 Aug;23(8):544-549.</u>

A/Prof Daniel O'Brien

Publications:

- 1. Ferreyra C, O'Brien D, Alonso B, Al-Zomour A, Ford N. Provision and continuation of antiretroviral therapy during acute conflict: the experience of MSF in Central African Republic and Yemen. Conflict and Health (2018) 12:30 https://doi.org/10.1186/s13031-018-0161-1
- 2. O'Brien DP, Athan E, Blasdell K, De Barro P. <u>Tackling the worsening epidemic of Buruli ulcer in Australia in an information void: time for an urgent scientific response.</u> Med J Aust. 2018 Apr 16;208(7):287-289.
- 3. Maddy LE, O'Brien DP, Campbell PJ. <u>Ibrutinib and antimicrobial therapy in a heavily pretreated patient with chronic lymphocytic leukaemia and disseminated cutaneous non-tuberculous mycobacterial infection: successful surgery-free approach.</u> Intern Med J. 2018 Apr;48(4):477-479.
- 4. O'Brien DP, Friedman ND, McDonald A, Callan P, Hughes A, Walton A, Athan E. <u>Wound healing:</u>
 Natural history and risk factors for delay in Australian patients treated with antibiotics for
 Mycobacterium ulcerans disease. PLoS Negl Trop Dis. 2018 Mar 19;12(3):e0006357
- 5. Tai AYC, Athan E, Friedman ND, Hughes A, Walton A, O'Brien DP. <u>Increased Severity and Spread of Mycobacterium ulcerans</u>, <u>Southeastern Australia</u>. Emerg Infect Dis. 2018; 24(1):58-64.
- 6. O'Brien DP. <u>Unlocking of the secrets of Mycobacterium ulcerans disease transmission.</u> Lancet Planet Health. 2017 May;1(2):e52-e53.
- 7. Masters PJ, Miller PJ, Sneath E, Wade AJ, Huffam S, Lim K, Pollard J, Standish J, McCloskey K, Athan E, O'Brien DP, Friedman ND.Immigrant health service at a regional Australian centre Australian family physician, December 2017, in press.

Conferences attended:

World Health Organization Consultation: HIV and co-infections, WHO headquarters, Geneva, 26-28 March, 2018.

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A/Prof Deb Friedman

Conference abstracts:

- Ingram R, James R, O'Reilly M, Koning S, Buising K, Thursky K, Chen C, Pollard J, Friedman ND. Results of a Hospital-in-the-Home National Antimicrobial Prescribing Survey (NAPS) Pilot. Presented as a poster at HITH Society Australasia annual meeting, Melbourne, November 2017.
- **2.** Martin H, Hurwitz J, Friedman ND, Pitson G. Population based Glioblastoma treatment outcomes. Presented at Clinical Oncology Society of Australia, Sydney, November 2017.
- **3.** Friedman ND, Ingram R, James R, Pollard J, Koning S, O'Reilly M, Buising K. Results of a Hospital-in-the-Home Antimicrobial Stewardship Survey. Presented at HITH Society Australasia annual meeting, Melbourne, November 2017.
- **4.** Friedman ND, James R, Ingram R, Buising K. The use of Piperacillin-tazobactam in the first Hospital-in-the-Home National Antimicrobial Prescribing Survey (NAPS) Pilot. Presented at Australian Society of Antimicrobials annual meeting, Brisbane, February 2018.
- **5.** Dowson L, Marshall C, Friedman ND, Buising K, Stuart R, Kong D. Antibiotic use near the end of life in aged care homes, the insights of nurses and general practitioners. Presented at Australian Society of Antimicrobials annual meeting, Brisbane, February 2018.
- **6.** Dowson L, Stuart R, Marshall C, Buising K, Friedman ND, Kong D. Does nurse-led 'respiratory PCR' influence aged care home antimicrobial prescribing review? Presented at Australian Society of Antimicrobials annual meeting, Brisbane, February 2018.
- 7. Friedman ND, James R, Ingram R, O'Reilly M, Pollard JJ, Koning S, George C, Buising K. Inappropriate outpatient intravenous therapy via hospital in the home for respiratory tract infections in Australia. Presented at Australasian Society of Infectious Diseases Annual meeting, Gold Coast, May 2018.
- **8.** Friedman ND. Results of the HITH NAPS Survey. Presented at Australasian Society of Infectious Diseases Annual meeting, Gold Coast, May 2018.
- **9.** Nack T, Tai AYC, Friedman ND. Can surgery be avoided in the treatment of Mycobacterium Abscessus cutaneous infection: a case report with treatment analysis. Presented at Australasian Society of Infectious Diseases Annual meeting, Gold Coast, May 2018.
- **10.** Tai AYC, Athan E, Friedman ND, Hughes A, Walton A, O'Brien DP. Increasing disease severity and geographic expansion with Mycobacterium ulcerans in South Eastern Australia. Presented at Australasian Society of Infectious Diseases Annual meeting, Gold Coast, May 2018.

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Publications

- 1. Tai AYC, Athan E, Friedman ND, Hughes A, Walton A, O'Brien DP. Increased severity and spread of Mycobacterium ulcerans, southeastern Australia. Emerg Infect Dis 2018
- 2. Masters PJ, Miller PJ, Sneath E, Wade AJ, Huffam S, Lim K, Pollard J, Standish J, McCloskey K, Athan E, O'Brien DP, Friedman ND. Health issues of refugees attending an infectious disease refugee health clinic in a regional Australian hospital. Australian J Gen Practice 2018;47(5):305-310.
- 3. O'Brien DP, Friedman ND, McDonald A, Callan P, Hughes AJ, Walton AL, Athan E. Wound healing: Natural history and risk factors for delay in Australian patients treated with antibiotics for Mycobacterium ulcerans disease. PLOS NTD 2018;
- 4. Friedman ND, Temkin E, Levit D, Taleb E, Mengesha B, Zaidenstein R, Lazarovitch T, Dadon M, Chen D, Kaye KS, Marchaim D. Towards a Definition for Healthcare-associated Infection. Open Forum Inf Dis, in press 2018.
- 5. O'Donnabhain R, Friedman ND. What makes a good doctor? Int Med J 2018, in press. Study Evaluating the Efficacy and Safety of a Human Monoclonal Antibody, REGN2222, for the Prevention of Medically Attended RSV Infection in Preterm Infants"DAP-PEDBAC-11-02 - A Comparative Evaluation of the Safety and Efficacy of Daptomycin Versus Standard of Care in Paediatric Subjects Two - Seventeen Years of Age With Bacteremia caused by Staphylococcus aureus
- 6. O'Brien DP, Friedman ND, Hughes AJ, Walton AI, Athan E. Antibiotic complications during the treatment of Mycobacterium ulcerans disease in Australian patients. Int Med J 2017; 47:1011-1019.
- 7. O'Brien DP, Wynne JW, Buultjens AH, Michalski WP, Stinear TP, Friedman ND, Hughes A, Athan E. Exposure Risk for Infection and Lack of Human-to-Human Transmission of Mycobacterium ulcerans Disease, Australia. Emerging infectious diseases 2017;23(5):837.
- 8. Sethwala A, Wang J, Sturm E, Collins KL, O'Donnabhain R, Friedman ND. Predictive value of symptoms, signs and biomarkers for predicting CTPA results. Int Med J 2017,
- 9. Yeramilli A, Tay E, Stewardson A, Kelley P, Bishop EJ, Jenkin G, Starr M, Trevillyan J, Hughes AJ, Friedman ND, O'Brien DP, Johnson PDR. The location of Australian Buruli ulcer lesions implications for unravelling disease transmission. PLOS NTD 2017, 11(8):e0005800

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Dr Amanda Wade

Study:

Awarded PhD on 9th May 2018, Monash University

Conferences / Presentations / Courses attended:

- Gilead Return to the Future of HIV meeting, Melbourne, 16 17 March 2018
- National Hepatitis B and C Symposium-invited panel member, St Vincent's Hospital Melbourne, November 24th 2017
- National Symposium on Hepatitis B and C 2017, Melbourne, 18 November 2017
- Ballarat Base Hospital GP meeting Hepatitis C for GP's, 17th October 2017
- Ballarat Base Hospital medical grand round Hepatitis C update, 20th September 2017
- Warrnambool PHN- Hepatitis C for GP's, 7th September 2017
- Australasian Viral Hepatitis Elimination Conference, Cairns, 10 -11 August 2017
- Australian Award Fellowship Promoting evidence-based treatment and prevention of Hepatitis C invited speaker, Burnet Institute, Melbourne, August 2017



Dr Amanda Wade was the winning Audience Choice Awards presenter, for her presentation titled 'Aiming for elimination: outcomes of a consultation pathway for general practitioners in regional Australia to increase Hepatitis C direct acting antiviral treatment' held during research week at Barwon Health in December 2017.

Publications:

- Wade AJ, Doyle JS, Draper B, Iser D, Roberts SK, Kemp W, Petrie D, Scott N, Higgs P, Agius PA, Roney J, Stothers L, Gane E, Stedman C, Thompson AJ, Hellard ME, A randomised controlled trial of community-based provision of direct acting antiviral therapy for hepatitis C: protocol and challenges, Trials, accepted June 2018.
- 2. Wade AJ, McCormack A, Roder C, McDonald K, Davies M, Wardrop M, Athan E, Hellard ME, Aiming for elimination: outcomes of a consultation pathway supporting regional general practitioners to prescribe direct acting antiviral therapy for hepatitis C, Journal of Viral Hepatitis, April 16, 2018
- 3. Scott N, Hainsworth SW, Sacks-Davis R, Pedrana A, Doyle J, Wade A, Hellard M,

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- **4.** Heterogeneity in hepatitis C treatment prescribing and uptake in Australia: a geospatial analysis of a year of unrestricted treatment access, Journal of Virus Eradication, 2018; 4: e30–e36
- Masters PJ, Miller PJ, Sneath E, Wade AJ, Huffam S, Lim K, Pollard J, Standish J, McCloskey K, Athan E, O'Brien DP, Friedman ND. Immigrant health service at a regional Australian centre. AFP, 2018, 47(5):305-310
- **6.** Thomas R Schulz, Rosalind Edwards, Christine Thurnheer M, Lilly Yuen, Margaret Littlejohn, Peter Revill, Melissa Chu, Firuz Tanyeri, Amanda Wade, Beverley-Ann Biggs, Sasadeusz Joseph, Hepatitis B amongst Immigrants from Myanmar: Genotypes and their Clinical Relevance, Journal of Medical Virology, 2018 Feb; 90(2):271-276
- 7. Nick Scott, Joseph S Doyle; David P Wilson; Amanda Wade; Jess Howell; Alisa Pedrana; Alexander Thompson; Margaret E Hellard, Reaching hepatitis C virus elimination targets requires cost-effective health system interventions to enhance the care cascade, Int J Drug Policy, 2017 (47) 107 116

Book chapters:

Woolnough E, Wade AJ, Sasadeausz J, Ribavirin and Viramidine chapter, Kucers' The Use of Antibiotics, 7th Edition, 2017, Hodder-Arnold.

REACH-C

Reach-C is a cohort study being run by the Kirby Institute collecting real world outcomes for direct acting antiviral treatment for HCV. Amanda Wade is the site investigator, and the project has been approved by REGI. Barwon Health has contributed 240 patients to this study, and publications will be forthcoming.

Dr James Pollard

Clinical Director, Hospital in the Home Board Member, HITH Society of Australasia Conference Chair, HITH Society Conference 2017 Conference Committee, HITH Society Conference 2018 Member HITH Working Group, National Antimicrobial Prescribing Survey (NAPS) Australia

Conference Abstracts

10th Hospital in the Home Society Conference, Melbourne, November 2017.

RESULTS OF A HOSPITAL-IN-THE-HOME ANTIMICROBIAL STEWARDSHIP SURVEY A/Prof N. Deborah Friedman, Robyn Ingram, Rodney James, <u>Dr James Pollard</u>, Sonia Koning, Prof Mary O'reilly, A/Prof Kirsty Buising

Pollard J, Loader, D, Joy in the Workplace, Workshop

COMMUNITY WARFARIN MANAGEMENT AT TIME OF HITH ADMISSION Dr James Pollard, Wendy Cumming

DEVELOPING A HOME-BASED MODEL OF CARE FOR ADMINISTRATION OF IMMUNOGLOBULIN Jacquie Waymouth, Ann-Maree Redden, Dr James Pollard

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RESULTS OF A HOSPITAL-IN-THE-HOME NATIONAL ANTIMICROBIAL PRESCRIBING SURVEY PILOT Rodney James, Robyn Ingram, Sonia Koning, Prof Mary O'reilly, Dr James Pollard, A/Prof Kirsty Buising, A/Prof N. Deborah Friedman

Other conferences attended:

HIV Innovations Forum, Sydney, August 2017.
Back to the Future of HIV, Melbourne, March 2018
ACTHIV Conference, Chigaco, April 2018
European Congress of Clinical Microbiology and Infectious Diseases (ECCMID), Madrid, April 2018
Australasian Society of Infectious Diseases ASC, Gold Coast, May 2018

Research

Chapters 188 – Iodoquinol and Quinacrine (with RL Grayson) and 191 - Fumagillin (with J McCarthy) in *Kucer's the Use of Antibiotics*, Seventh edition, Taylor and Francis Group.

Principal Investigator (local)

A Prospective Multi-Centre Study of the Respiro Flu Test and eLab Flu Test Performance versus Reverse Transcriptase Polymerase Chain Reaction (RT-PCR) for the Rapid Detection of Influenza A/B (RESP 1601). BH Project 16/121. HREC Ref: HREC/16/RCHM/55 (Project now completed)

PARA004: A pilot study to investigate the effects of pentosan polysulfate sodium in Ross River Virus induced arthralgia; BH Project 17/76. Bellberyy Ref 2017-03-235-AA-A-2

Secondary / Associate Investigator

17/04 C.diff 16/4 JNJ RSV 16/208 JNJ Adult RSV

17/220 64041575RSV2004 (PLUM)

17/221 64041575RSV2002 18/18 53718678RSV2004 (ROSE) 18/19 64041575MPN2001

18/86 VAC18194RSV2002

Dr Raquel Cowan

Conferences attended:

- 1. European Society for Clinical Microbiology and Infectious Diseases Annual Conference, Madrid Spain, May 21 24, 2018
- 2. Diagnostics in Infectious Diseases, Alfred Hospital, Nov 24, 2017
- 3. ACIPC Infections Control Annual Conference, Canberra, 20 22 Nov, 2017
- 4. Hospital in the Home Annual Conference, Melbourne, 15 17 Nov, 2017

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- 5. Australasian Society for HIV Medicine Annual Conference, Canberra, Nov 8 11, 2017
- 6. 2017 Tri-state Scientific Meeting and Parasitology Masterclass, Darwin, 22 25 Sept, 2017
- 7. ACTM Travel Medicine Conference, Doherty Institute, 8 10 Sept, 2017
- 8. National Centre for Cancer and Infections Inaugural Symposium, Peter MacCallum Cancer Centre, August 11, 2017

Dr Alex Tai

Infectious Diseases fellow (2017)
Infectious Diseases Physician (2018)
Sepsis scaling collaboration clinical lead (2018)

Conference Abstracts

Increased severity and spread of Mycobacterium ulcerans, south-eastern Australia. Tai AYC, Athan E, Friedman ND, Hughes A, Walton A, O'Brien DP. Australasian Society for Infectious Diseases (ASID) Annual Scientific Meeting at the Gold Coast. 10th-12th May 2018.

Can surgery be avoided in the management of *Mycobacterium abscesses* cutaneous infection? Nack T, Tai A, Friedman D. Barwon Health. Australasian Society for Infectious Diseases (ASID) Annual Scientific Meeting at the Gold Coast. 10th-12th May 2018.

Increased severity and spread of Mycobacterium ulcerans, south-eastern Australia. Tai AYC, Athan E, Friedman ND, Hughes A, Walton A, O'Brien DP. Barwon Health Research Week. 13th -17th November 2017

A retrospective review of spinal infections in an Australian regional setting. Wilkinson E, Tai A, Athan E. Barwon Health Research Week. 13th -17th November 2017

Publications:

- Sturm E, Tai A, Lin B, Kwong J, Athan E, Howden BP, Angliss RD, Asaid R, Pollard J. Bilateral osteomyelitis and liver abscess caused by hyper virulent Klebsiella pneumoniae- a rare clinical manifestation (case report). BMC Infectious Diseases. 2018: 18:380
- 2. Tai AYC, Athan E, Friedman ND, Hughes A, Walton A, O'Brien DP. Increased severity and spread of Mycobacterium ulcerans, southeastern Australia. Emerg Infect Dis. 2018 Jan

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4. INFECTION PREVENTION SERVICE (IPS)

IPS TEAM

Office in DHI

Manager:

• Paul Simpson (1.0 FTE)

Clinical Nurse Consultants (CNCs):

- Kaylene Styles (1.0 FTE)
- Alison McKenzie (1.0 FTE)
- Penny Radalj (0.6 FTE)
- Ann Gray (0.5 FTE)
- Julie Heath (0.4 FTE)

Audit & Surveillance Nurse

• Kelly Williams (0.6 FTE)

Conference/Study Days Attendance

- Paul Simpson attended ACIPC, Canberra, November 2017
- Alison McKenzie –HIV and Hepatitis Pre and Post Test Course, 2018 Health Winter Symposium, Victorian Antimicrobial Stewardship Forum
- Kaylene Styles Regional Infection Prevention Study Day in Lorne
- Penny Radajl attended ACIPC, Canberra, November 2017
- Ann Gray Regional Infection Prevention Study Day in Lorne
- Julie Heath Age Care Influenza Workshop
- Kelly Williams Hand Hygiene Gold Standard Training, Infection Prevention Study Day Alfred Health, Infection Prevention in the Built Environment Workshop – Barwon Health

IPS GOVERNANCE CONTRIBUTION

IPS made a significant contribute to Barwon Health's successful mid-term National Standards accreditation.

Committees and working groups IPS contribute:

- National Safety & Quality Standard 3 Committee
- Clinical Product Committee
- Aged Care Quality Committee
- IRC Leadership Committee
- Mental Health Safety & Quality Committee
- Antimicrobial Stewardship Committee
- Clinical Practice Committee
- Acute Occupational Health & Safety (OH&S) Clinical Committee
- Building and Redevelopment Meeting
- Infectious Diseases and the Microbiology Weekly Team Meeting



KEY PERFORMANCE INDICATORS

Hand Hygiene

The Victoria Department of Health hand hygiene compliance target rate is 80%. Barwon Health continues to consistently achieve above the required target rate (see Table 1).

Table 1 - Hand Hygiene Compliance Rate (2015 – 2016)

Audit Period	2/2017	3/2017	1/2018
Compliance Rate	81.5%	82.3%	82.1%

Infection Surveillance

The Barwon Health contributes to VICNISS from both major sites of University Hospital Geelong (UHG) and The McKellar Centre. Data submitted to VICNISS includes *Staphylococcus aureus* bacteraemia (SAB), central line-associated blood stream infections (CLABSI) and *Clostridium difficile* Infection. Also surgical site infection (SSI) surveillance data is submitted for orthopaedic (hip and knee) joint replacement and cardiac surgery.

In 2017, the Department of Health & Human Services (DHHS) also mandated infection surveillance to all Aged Care facilities. Therefore from Quarter 2, 2017-18 surveillance in aged care facilities will be conducted on Methicillin Resistant Staphylococcus Aureus (MRSA), Vancomycin Resistant Enterococcus (VRE) and Clostridium difficile infections from October 2017.

Healthcare Associated Staphylococcus Aureus Bacteraemia (HCA-SAB)

The DHHS have reduced the target rate for SAB to below 1 per 10,000 occupied bed days (OBD). Barwon Health SAB combined rate from 2017 - 2018 was 0.9 per 10,000 OBD (see Table 2).

Table 2 - HCA-SAB (2017 - 2018)

	No. of SAB	OBDs	Rate*	95% CI	No. of MRSA	MRSA Rate per 10,000 OBDs	95% CI
Barwon Health	16	174641	0.9	0.5 - 1.5	0	0.0	-
VICNISS 5 year Aggregate(n=78)	1980	26506014	0.7	0.7 - 0.8	371	0.1	0.1 - 0.2

^{*}Rate = SAB per 10,000 OBD

Central Line-Associated Blood Stream Infections (CLABSI)

There have been 2 intensive care unit (ICU) CLABSI from 2017 – 2018 (YTD) (see Table 3).

Table 3 - CLABSI (2017- 2018 YTD)

	No. of Infections	Device Days	Rate*	95% CI	DUR	No. of CLAMBI
Barwon Health	2	2219	0.9	0.1 - 3.3	0.62	1
VICNISS 5 year Aggregate(n=9)	139	190798	0.7	0.6 - 0.9	0.69	1

^{*}Rate = CLABSI per 1000 central line days



Healthcare Associated Clostridium Difficile Infection (HCA-CDI)

All CDI's both healthcare associated and community acquired are reported to VICNISS. For the 2017-2018 a rate of 2.6 (rate = CDI per 10,000 occupied bed days (OBD)) for Barwon Health was only slightly above the state aggregated 5 year rate of 2.2 (see table 4).

Table 4 - HCA-CDI (2017 - 2018)

	No. of CDI	OBDs	Rate*	95% CI
University Hospital Geelong	37	139972	2.6	2.1 - 4.0
Inpatient Rehab Centre	3	26048	1.2	0.2 - 3.4
Barwon Health	40	174641	2.3	
VICNISS 5 year Aggregate(n=91)	5463	24740748	2.2	2.1 - 2.3

^{*}Rate = CDI per 10,000 OBD

Cardiothoracic Surgery

During this reporting period the cardiothoracic surgery coronary artery by-pass graft with both chest and donor site (CBGB) has seen some significant reductions for all infections (see table 5). IPS has continued to meet with the cardiothoracic team throughout 2017/18 to help devise improvement strategies.

Table 5 – Cardiothoracic Surgical Site Infection (SSI) (2017–2018 YTD)

Procedure	Risk Index	No. of Infections	No. of Procedures	Rate*	VICNISS 5 year Aggregate (n=5,9,7) Rate	No. of deep/OS Infections	Deep/OS Rate	VICNISS 5 year Aggregate(n=5,9 ,7) Deep/OS Rate
CARD	0	0	1	0	0	0	0	0
	1	0	56	0	0	0	0	0.4
	2/3	1	37	2.7	1.3	0	0	0.4
CBGB	1	2	85	2.4	3.0	2	2.4	1.0
	2/3	3	62	4.8	5.5	1	1.6	1.6
CBGC	1	0	12	0	1.2	0	0	0.6

^{*}Rate = Infection per 100 procedures

Colorectal Surgery

Colorectal SSI surveillance was recommenced in Qtr 3 2017-2018.

Table 6 - Colorectal Surgical Site Infection (SSI) (2017-2018 YTD)

Procedure	Risk Index	No. of Infections	No. of Procedures	Rate*	VICNISS 5 year Aggregate Rate	No. of deep/OS Infections	Deep/OS Rate	VICNISS 5 year Aggregate Deep/OS Rate
COLO	-1	0	5	0	3.1	0	0	2.3
	0	1	48	2.1	3.5	0	0	1.6
	1	9	72	12.5	7.0	7	9.7	2.9
	2/3	6	37	16.2	12.5	4	10.8	5.2

^{*}Rate = Infection per 100 procedures



Orthopaedic Surgery

Both Hip and Knee replacement surgery SSI rate has demonstrated continuing low rates of SSI with only 1 Hip & 1 Knee infection reported in this financial year to date (see table 7 & 8).

Table 7 – Hip SSI (2017-2018 YTD)

Risk Index	No. of Infections	No. of Procedures	Rate*	VICNISS 5yr Aggregate(n=31) Rate	No. of deep/OS Infections	Deep/OS Rate	VICNISS 5yr Aggregate(n=31) Deep/OS Rate
0	0	29	0	0.7	0	0	0.5
1	0	132	0	1.0	0	0	8.0
2/3	1	61	1.6	2.6	1	1.6	2.1

^{*}Rate = Infection per 100 procedures

Table 8 - Knee SSI (2017-2018 YTD)

Risk Index	No. of Infections	No. of Procedures	Rate*	VICNISS 5yr Aggregate (n=31,32,34) Rate	No. of deep/OS Infections	Deep/OS Rate	VICNISS 5yr Aggregate (n=31,32,34) Deep/OS Rate
0	0	21	0	0.6	0	0	0.4
1	0	90	0	0.8	0	0	0.5
2/3	1	64	1.6	1.1	1	1.6	0.8

^{*}Rate = Infection per 100 procedures

Additional Surveillance undertaken at University Hospital Geelong includes:

All bloodstream infection are monitored and investigated in order to establish if healthcare associated and device related. This investigation will then form an in-depth case review of all HCA-SAB in conjunction with the clinical teams caring for the case and the Safety and Quality Unit. Daily monitoring of Multi Resistant Organisms (MRO) is conducted and each new MRO or readmission with an MRO alert a risk assessment is conducted. This risk assessment will inform the requirement for additional transmission-based precautions and specialist cleaning requirements.

Outbreak Management & Contact Tracing

The IPS team, as required, continues to manage and liaise with the Department of Health and Human Services and key stakeholders in the event of an infectious outbreak. This may also facilitate contact tracing. During this reporting period there has been a variety of incidence including Gastroenteritis outbreaks and contact tracing for Measles, Pertussis, Chicken pox and Tuberculosis.

Policy/Procedure/Guideline Development

IPS guidelines are updated, revised and new guidelines are produced as required and loaded onto PROMPT. Many Infection Prevention Information sheets have been reviewed by WISE. Planning to produce some additional consumer information regarding MROs.

Education

IPS continues to liaise with staff education services to increase educational activity throughout the whole organisation. All wards and departments receive relevant education on a needs and request basis. It is planned for next year that an IPS team member will have a specific portfolio to manage Infection Prevention education.

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Audits

In conjunction with the Safety and Quality Unit & IPS, using C.Gov, there has been some organisational-wide annual audit tools. These include a National Standard 3 audit, an aseptic technique audit for peripheral line insertion technique and a sterile stock audit. IPS has also started to develop Infection Prevention Environmental audit tools that will be trialled in the next 12 months.

Projects/Research

'Transmission-based Precautions Project' remains a major focus during 2017-18. The aim of this project is to review current practices around the implementation of transmission based precautions, and its application at a ward based level. As part of this project work has been undertaken to develop new patient-centred risk assessments, cleaning practices, appropriate personal protective equipment usage and to improve transmission-based precaution signage. This project is almost completely rolled out across University Hospital. The next phase will be to roll out across the IRC and adapt and modify for age care.

In conjunction with Environmental Services and Patient Services Assistants Barwon Health have taken part in a large multi-centre research study analysing a cleaning bundle intervention. The study entitled 'Researching Effective Approaches to Cleaning in Hospitals' (REACH) aimed to measure the effects of a bundled approach to improved cleaning effectiveness. The bundle included education on high-touch surfaces cleaning and gel dot auditing. Outcome measures included gel dot auditing results and a range of infection rates. Results of the study appear to indicate increased compliance with cleaning is associated with a reduction in VRE from 0.65 VRE infection/colonisation per 100,000 OBDs pre-trial to 0.17 after 35 weeks following introduction of the intervention.

IPS also recently helped facilitate a study to establishing the prevalence of healthcare associated infections in Australian hospitals. This study was called Comprehensive Healthcare Associated Infection National Surveillance (CHAINS). CHAINS is a cross sectional study design which will be used to form of a Healthcare Associated Infection (HAI) point prevalence survey. A HAI point prevalence survey only counts the HAI if it is present at the time (on the day) of the survey.

Building and Engineering

IPS have been involved in consulting on a vast number construction projects including; Day of Surgery Admission, Renal Home Training, Maternity Day Assessment Unit, Barwon Medical Imaging and Barwon North developments to name a few.

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5. LIVER CLINIC

Infrastructure

The Liver Clinic is situated in the Outpatients Annexe, where patients attend clinics on a Monday (nurse-led assessment clinic) and Wednesday (physician clinic). A fibroscan clinic occurs every fourth Friday. Appointments with nursing staff are available for patients as required, on Monday and Wednesday afternoon as well as Thursday and Friday morning.

Human Resources

Director

Dr Amanda Wade

Hepatology Nurse Consultants

Margaret Wardrop (Outreach Coordinator/Integrated Hepatitis Nurse) Melissa Heath (Clinic Coordinator) Susan Streat

Research Assistant

Christine Roder

Gastroenterologists

Dr Paul Dabkowski

Dr Damien Dowling

Dr Emily Prewett

Dr Chris Hair

Dr Mohammed Al-Ansari

Infectious Diseases Consultants

Prof Eugene Athan

A/Prof Daniel O'Brien

Dr Aaron Walton

Dr Sarah Huffam

Dr James Pollard

Dr Raquel Cowan

Dr Alex Tai

Infectious Diseases Fellows

Dr Aaron Bloch

Dr Caroline Bartolo

Registrars

Gastroenterology x 2

Infectious Diseases x 2

Pharmacist

Sarita Thethy

Volunteer

Tracey Roebuck

Psychiatrist available by referral

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Service

Physician clinic staff

- One physician from gastroenterology and one from infectious diseases attends weekly
- Amanda Wade the clinic director attends weekly
- Two gastroenterology registrars and two infectious diseases registrars attend weekly

The service is staffed by two part-time hepatology nurse consultants (clinic coordinator 0.8 EFT, staff hepatology nurse 0.5 EFT) and one part time integrated Hepatitis C nurse /outreach coordinator (0.6 EFT). A pharmacist attends the nurse-led clinic to assess new patients, as well as attending liver clinic meetings and providing email and phone support to medical staff. The position of consultant psychiatrist remains vacant.

From July 1, 2017 to June 30, 2018, the physician clinic had:

- 184 patients booked for new appointments (up from 151 the previous year)
- 1219 patients booked for review appointments (up from 1068 the previous year)
- A total of 1388 booked appointments in 2017-2018, which is approximately 14% more than to 2016-2017 and approximately 25% more than 2015-16
- The waiting list numbers have fallen significantly with 40 people currently waiting for a first appointment, down from 160 people12 months ago
- A substantial increase in Hepatitis B-related appointments has been noted, over the last 4 years.

Hepatitis C Treatment

188 people have been or are currently being treated for Hepatitis C (HCV) during 2017 -2018. Three factors significantly contribute the maintenance of the high treatment rate:

- 1. Continually improving Pharmaceutical benefits scheme (PBS) listed direct-acting anti-viral (DAA)
- 2. Increase in patient appointments available in the Wednesday clinics.
- 3. Attendance of pharmacist at nurse led clinic on Mondays

Hepatitis B Treatment

Appointments in liver clinic related to HBV have grown substantially, both in number and as a proportion of all appointments. In April-June 2014, 42 physician clinic appointments were booked for patients with Hepatitis B, which constituted 16.7% of total appointments. In the same period in 2018, there were 110 hepatitis B-related appointments, constituting 33.1% of all appointments.

Nurse Facilitated Patient Education and Care

All people attending Liver Clinic received a minimum of one hour individualised nurse-provided education tailored to their viral hepatitis infection, management and possible treatment options. This appointment routinely includes a fibroscan, performed by nursing staff. The availability of safer, well tolerated treatment has meant that people with complex medical and psychosocial health needs can now have their HCV treated. However, this cohort requires considerable additional nursing support to manage their scripts, medication adherence, attendance to requested pathology testing, follow up of their results, appointment scheduling and appointment attendance.

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Fibroscan

The mobile fibroscan continued to be well utilised as part of patient assessment, both in the Liver Clinic at Geelong, and by the Integrated /Outreach Hepatitis C nurse. All three clinic nurses, our pharmacist and several doctors have been trained in its use.

Continued access to an XL probe fibroscan since April 2017, through the EC-WEST program, has significantly improved the success and accuracy of fibroscans amongst patients with elevated BMI. This additional fibroscan has also improved service, in that one fibroscan is always available in Geelong when the other is in Western Victoria with the Outreach nurse; additionally, two patients can be scanned concurrently in the Geelong clinic, when both scanners are available.

Nurse-led assessment clinic

The nurse-led assessment clinic continues on Monday mornings, seeing new patients from the waiting list.

- From July 1 2017- June 30 2018, the clinic had 388 booked patient appointments, up from 355 the previous year and 243 in 2015-16.
- The increase in the number of patients seen has been made possible by the addition of a pharmacist who attends the clinic, where she streamlines assessment of patient suitability for HCV treatment.
- Of the 388 appointments in the past year, 183 patients did not attend their appointments and 15 patients did not have HCV.
- The waiting list for new patients currently stands at approximately 40 and waiting time for a nonurgent first appointment is approximately 14 weeks.
- The rate of unattended appointments is approximately 47%
- The SMS automated appointment reminder service has been implemented for only a minority of liver clinic patient appointments.

Integrated Hepatitis C Nurse (0.6 EFT)

This position commenced March 2011 and is funded by the Victorian Department of Health. Since the advent of better treatments for HCV with less side effects and better outcomes the role of the integrated nurse is changing with greater emphasis on encouraging and assisting GPs to prescribe these medications. More time is now spent in GP education and assisting practise nurses to identify hepatitis and treat at a primary level.

For this financial year 120 patients were booked for new appointments and 155 were booked for review appointments. These 275 patients have been cared for utilising a shared care model with Barwon Health staff and GPs and rural physicians throughout the Barwon South West Region. In line with activity based funding, telephone contact with patients is now being recorded.

32 patients are known to have or are currently receiving treatment for their HCV.
 It should be noted that many patients are now being treated by their GP after initial assessment and work up visit by myself; it is impossible to gauge exactly how many have been successfully treated.

Venues where patients are seen are Drug and Alcohol services Geelong, Colac, and Wathaurong Aboriginal Co-operative, North Geelong, 2 sites at Portland, one of which is an aboriginal centre, 2 sites at Hamilton, 2 sites at Warrnambool, with an aboriginal centre to soon be included.

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- Fibroscan is performed on site by the hepatology nurse, now utilizing the XL probe.
- Recommendation is made to the referring GP or specialist to consider referral to one of the Melbourne hospitals for access to a fibroscan which can assess steatosis where fatty liver disease is suspected or already identified.
- Ongoing surveillance of patients with hepatitis B and those patients who have been cured of hepatitis C but have developed cirrhosis and require 6 monthly hepatoma surveillance.

All administration duties are carried out by the integrated nurse. These include booking of patient appointments and sending appointment letters to patients. All booking of accommodation and subsequently claiming back expenses incurred is also attended to by the integrated nurse.

Liver Clinic Journal Club

Liver Clinic Journal Club continues every alternate month, Wednesday at 1045. This time appears suitable for most clinicians and has resulted in high journal club interest and attendance, promoting peer review and professional development. It has been particularly valuable in facilitating discussion about DAA.

Liver Clinic Guidelines

The clinic guidelines have had ongoing review throughout the year as required and are an essential reference for practice as changes in HCV treatment continues to evolve. The guidelines are an important resource for current and new physicians rotating through the clinic.

Conferences and education sessions attended:

Amanda Wade detailed in other section of annual report

Melissa Heath attended:

- AVHEC Australasian Viral Hepatitis Elimination Conference, Cairns, 10-11 Aug 2017
- 'Facing the Future of Hepatology Together' AHA Biennial Conference, Cairns,11-12 Aug 2017
- Hepatitis C Summit, Sydney, 27-28 Oct 2017
- Barwon CASA/Minerva together with Karen and Karenni Leaders, culture and life experiences, Nov 2017
- Eliminating HCV in the community: Sharing experience of the Cherokee Nation, Wathaurong Health Services, Feb 2018
- EASL Update, Melbourne, 2 May 2018
- Accelerate HCV Elimination, Sydney, 25 May
- Liver Clinic Journal Club Meetings bimonthly

Melissa has enrolled in 'Advanced Liver Disease Nursing' course at Royal Prince Alfred, in collaboration with University of NSW. On completion of all assessments, the course provides two units credit towards post graduate diploma studies.

Susan Streat attended:

- Liver Clinic Journal Club Meetings bimonthly
- EASL Updates, Toorak, Melbourne, 2 May, 2018

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- Pathway to HCV Elimination, Richmond, Melbourne, 21 March 2018
- Eliminating HCV in the Community Sharing Experience from the Cherokee Nation, East Melbourne, 26 February 2018
- Hep C Summit, Sydney, 27- 28 October 2017

Margaret Wardrop attended:

- Quarterly Integrated Hepatitis Nurse meetings are attended in Melbourne
- EC West meetings are attended quarterly in Melbourne
- AHA webinar, 26 June 2018, 2-3pm: Pathophysiology of Advanced Liver Disease
- EASL update and Changing Role of HCV Integrated Nurse, 14 June 2018, Soth Yarra, Melbourne
- Needle and Syringe Program: The missing piece of the hepatitis C puzzle, 23 May 2018, Multicultural Hub, Elizabeth St, Melbourne
- EASL update, 2 May 2018 Toorak, Melbourne
- EASL 11-15 April 2018, Paris
- Hepatology Nurses Group: Ins and Outs of Viral Hepatitis, 22 February 2018, Melbourne
- Hep C Summit, 27- 28 October 2017, Sydney
- MSD Toolkit training, 25 October 2017 Melbourne
- Eliminating hepatitis C in the Community, Melbourne
- AHA webinar, 28 September 2017, HCC: The Sleeping Giant Awakes: Diagnosis, Management, Treatment and the Nurses role in HCC.
- Hepatology Nurses Group, Wilson's Disease & Autoimmune Hepatitis 13 September 2017, Melbourne
- Hepatology Nurses Dinner Meeting, Eliminate hep C + Treatment in a Prison Setting, 3 August 2017

Melissa Heath, Sue Streat and Margaret Wardrop attended:

 Victorian Hepatology Nurses quarterly meetings which provide education and liaison opportunities with hepatology nurses state wide.

Meetings with pharmaceutical representatives have been time consuming at times but generally helpful.

OPERA-C Study

The Opera-C study is an observational prospective epidemiological registry of HCV liver disease in Australia. The study is coordinated by Dr Paul Clark from Royal Brisbane and Women's Hospital (RBWH) and is sponsored by the Australian Liver Association (ALA) and the Gastroenterological Society of Australia (GESA). Dr Amanda Wade is the Barwon Health site Principal Investigator. It is hoped that at least 10,000 HCV patients will be recruited to the study over a five year period. Recently, the RBWH Human Research Ethics Committee (HREC) approved the study to continue until 23rd November 2022.

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To date Barwon Health Liver Clinic has enrolled 60 patients to the study. Forty one patients have completed their involvement in the study and 20 patients' involvement is ongoing. Capacity to recruit patients to the study continues to be challenging across all study sites including Barwon Health. The evolution of HCV eradication therapy and associated changes to prescribing and treatment guidelines, busy clinics yet also a general decline in the number of referrals of patients with HCV to Liver Clinics this year along with some GP's now more confidently prescribing HCV eradication therapy, has led to reduced numbers of patients treated in Liver Clinics across all sites this year. Furthermore, a temporary change to staff capacity for several months at Barwon Health Liver Clinic necessitated patient and clinic management taking priority over participant recruitment to the OPERA-C study.

Currently, recruitment to the study at Barwon Health Liver Clinic is ongoing and increasing. Recent protocol amendments to the study have been approved to broaden the inclusion criteria in an attempt to recruit people who were previously missed prior to or during treatment. Recruitment can now be undertaken retrospectively to include people who still attend the Liver Clinic, completed treatment and have either a Sustained Virological Response (SVR) or treatment failure.

Further protocol changes will enable the study to capture more detailed data about people who attend the Liver Clinic who are or have been HCV positive and have been diagnosed with Hepatocellular Carcinoma (HCC). Participants recruited to the OPERA-C study who also have an HCC diagnosis will be followed up every six months for five years as opposed to participants who do not have HCC whereby follow up is six monthly for two years or until discharge from clinic.

Barwon Health Research Governance Office (RGO) is currently considering acknowledgement of the approval of the amended project protocol and extension of the project by RBWH HREC. On receipt of Barwon Health RGO acknowledgement of the RBWH HREC approval of the amendments to the study protocol and extension of the study to 2022, the Barwon Health site will commence including the additional HCC data for relevant study participants.

Data collection is ongoing and undertaken on Friday afternoons by a clinic nurse unless urgent clinic or patient management issues take priority.

The annual study progress report and Barwon Health site annual study progress report for 2017 to 2018 have recently been submitted to the Barwon Health RGO and awaiting a letter of acknowledgment.

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6. Infectious Diseases/Immigrant & Refugee Health clinic

Human Resources

Prof Eugene Athan A/Prof. Dr Daniel O'Brien A/Prof. Dr. Deb Friedman Dr Sarah Huffam Dr James Pollard Dr Yvonne Hersusianto Dr Raquel Cowan Dr Aaron Walton Dr Amanda Wade A/Prof. Andrew Hughes Dr Alex Tai

ID Registrars

Dr Fabian Chiong Dr Caroline Bartolo Dr Louise Parry

Paediatric Consultants

Dr Kate McCloskey Dr Jane Standish Paediatric registrars

Clinic Coordinator

Jude Butwilowsky CNC

Service

The Infectious Diseases Clinic consists of the Infectious Diseases and Immigrant/Refugee clinic and the Paediatric Refugee clinic held each Tuesday morning in Outpatient Annexe. The ID/Immigrant/Refugee Clinic has three Infectious Diseases Consultants on roster and the Infectious Diseases Registrars providing service for patients requiring infectious diseases management. Refugees and immigrants are referred by their GP for ongoing management of complex health issues. The Paediatric Refugee Clinic is staffed by two Paediatric consultants who alternate session and the paediatric fellow and Registrar for review of children from a refugee background referred by their GP for medical and developmental issues The Clinical Nurse Consultant provides coordination for the clinic working .4EFT.

The 2017-2018 year has been a busy one. The appointments booked in the ID clinic this year totalled 1381, up from 1136 in the last year. There were 300 new and 679 review appointments giving an overall of 979 appointments attended, up from the previous year of 821. This averages out at 20 patients seen per week. The DNA (did not attend) appointments were 402 of the 1381 booked appointments which is an average of 8 appointments per clinic. The high non-attendance of appointments has an impact on the co-ordination of the clinic when the spots available are limited and the appointment needs to be rebooked urgently.

Clinic Co-ordination:

The limited number of rooms available in the outpatient annexe impacted on the management of the appointments needing to be booked for both the ID clinic and the paediatric clinic which also had an increase in the numbers attending. However in February 2018, the clinic was required to move into new

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rooms to allow for reconfiguring of outpatient services in the Outpatient Annexe. The clinic is now located in the building at 73 little Ryrie St, previously occupied by Geelong Private Medical Suite. The clinic has access to 9 rooms, allowing all Drs attending clinic to have a room, though two are not ideal for consulting, it has eased the problem that the clinic experienced in the annexe.

It has been challenging as the clinic rooms have had only external access to BH since the move resulting in staff accessing BH's system using laptops and mobile phones. Printers and faxes also are not installed yet. Currently we are awaiting advice on when the IT set up will happen. Volunteers were assigned in the transition period to help direct patients from the annexe to the new clinic rooms, but this was only short term. It is more difficult for refugee patients to locate the clinic on the second level and is more confusing as the building also houses a number of other organisations. The clinic has access to nine rooms now which has improved the flow of the clinic as all ID consultants, registrars and Paediatric Drs can access rooms though not all are set up for consults.

Refugee Clinic.

Over the year there has been a reduction in the new refugees/immigrants referred to the clinic- 68 compared to 93 in the 2016-17 year. There were 522 booked appointments and 422 seen in clinic; a comparable number to the previous year of 419. Onsite interpreters are requested through the OnCall booking system however at times some languages are unavailable in particular the Karenni language as so few are available in the country.

The ID reception sends automated SMS reminders to the Paediatric patients and this has resulted in a lower DNA rate. The CNC sends targeted SMS reminders to patients who need to have review Xrays or blood tests prior to appointments which has reduced the DNA rate within the refugee population and compared to the overall ID clinic DNA rate.

Paediatric Refugee Clinic

The Paediatric Refugee clinic had a total of 448 booked appointments for the year with 338 patients actually seen in clinic, an average of 7 each week. The number of DNA appointments was 110, an average of 2.5 per week which is very similar to last year's rate of 112. Of these, there were 49 new and 289 review appointments.

The Paediatric consultants have continued to work closely with the RHN, GPs, social workers and the NDIS to address the health needs of the refugee children referred for developmental and medical concerns, and to support the families to navigate the often complex and conflicting appointments

TB Referrals

The ID clinic works closely with the TB programme in Department of Health and Human Services to endure follow up of patients with active TB. The TB nurse attends clinic regularly and liaises with the CNC for follow up of treatment adherence and outcomes. Recently Medicare has changed its policy and the Quantiferon test is now bulk-billed for refugees with a Medicare card where previously refugees had to pay which was then covered by the ID clinic. The majority of refugees seen in the clinic have latent TB either on treatment or two year monitoring programme.

Telehealth

The capacity of the ID clinic to incorporate Telehealth into the appointment booking system has improved with the support of the Telehealth project team. Appointment letters and processes have been adapted to respond to the ID clinic requirements to improve access for rural patients, the majority coming from Hamilton, Portland and surrounding areas in South West Victoria. Telehealth provides consultations for patients via the use of technology, through video call over the internet, or patients can use their own phone or device at their home or place of employment if this is appropriate. Most patients generally have chosen to utilise the support regional GP clinics offer as many are very well set-up for Telehealth and have rooms available where GP involvement isn't necessary. The Outpatient reception staff has been trained to facilitate telehealth and incorporate it into the normal Barwon Health outpatient booking system.



Refugee Health Advisory Committee.

This committee was set up in late 2016 to develop an action plan to meet the Barwon Health Statement of Priorities for improving refugee health service across Barwon Health. The CNC attends this meeting held every second month on Tuesdays with representatives from Corio Community Health Centre, and the refugee health nurses, the

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7. Hospital Admission Risk Program (HARP) HIV program

Infrastructure

HARP Team: 120 Settlement Rd, Belmont

Human Resources

Helen Fay (0.8 EFT) Nurse Alison Guida (0.2 EFT) Nurse Cico Lobbert (0.3 EFT) Social Work

Managed By

Robert Pereira HARP; Team Leader

Jan Byrnes and Theresa Parker; Acting HARP Coordinators; Chelsea Gielen Current HARP Coordinator Josephine Stevens; Manager Chronic and Complex Care

HARP is part of the Health Independence Programs and continues to provide outreach care and support for people living with HIV in our region who are newly diagnosed or who have been living with HIV for long periods of time. The model provides intensive support that fluctuates and tapers over time.

Numbers:

From July 2017 to June 2018, there have been care coordination provided to 50 clients. There have been 847 VINAH direct contacts made.

Twenty two new clients were admitted to the program this year .The remainder were already engaged with HARP.

Demographics

- 19/50 or 38% identified as females with an average age of 31 years
- 31/50 or 62% identified as males with an average age of 42 years
- 36/50 or 72% clients were Australian born
- 14/50 or 28% were born overseas:
- 24/50 or 48% clients live alone and 36/50 or 72% receive Centrelink payments.

Length of Diagnosis

- 7 clients were newly diagnosed.
- 22/50 or 44% have been diagnosed <5 years. Over 75% of this group of clients are under 30 years of age.
- 17/50 clients have lived with HIV 5-20 years
- 4/50 have lived with HIV >20 years.

This year, Dr Robert Pereira Team Leader/Occupational Therapist from HARP completed a comprehensive review of our service providing complex care coordination, advocacy and support to people living with HIV/AIDS in the Geelong and Barwon-Southwestern region.

The report highlights the speciality role of HIV specialist Community Clinicians and clarified role differences between HIV care coordination and generic HARP care coordination work. This included a review of the literature of best practice care coordination models and how they are utilised at HARP, documenting HIV-specific interventions used, as well as care planning processes.

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The review concluded that HARP HIV specialist clinicians are engaged in person-centred, sensitive, collaborative and complex care coordination work that requires highly developed clinical skills including listening, health coaching, telehealth, system navigation, motivational interviewing, solution-focused counselling, life transition education, and championing other enablement strategies.

HARP HIV specialist clinicians work through deeply embedded social and cultural complexities within this client group to provide service with effective chronic disease self-management outcomes. Of note is the strong relationships that HARP HIV specialist Community Clinicians have forged with the BRASH Clinic, as well as metropolitan, regional and rural HARP and other non-government organisation partners.

Finally, the report identified service gaps, issues and future opportunities to expand supports and share resources, such as sharing the HIV intensive care coordination service model with other HARP services regionally, as well as participate in future research that highlights HARP HIV specialist care coordination work. We are very grateful to Rob for putting so much energy into this report.

Outcomes:

The gold standard of care for both patient health outcomes and mitigation of transmission is HIV viral load suppression. Some of the barriers to achieving this are mental health and cognitive issues, financial issues, housing instability and drug and alcohol issues. HARP work with multiple agencies to ensure the client's barriers are overcome.

At the time of this report, 47 out of 50 or 94% of HARP clients had an undetectable HIV viral load at their last blood testing. Two of these clients has just recommenced AVR treatment. One other client has been lost to follow up.

HARP clinicians have been involved with nine regional/rural clients. HARP have coordinated 29 telehealth appointments which has saved our clients a total of 15,825 kms in travel for their medical care. This was nearly double the figure of 8,700 kms saved in 2016/17 . One client who was coordinated by Cico Lobbert together with Meg Watson from Hamilton HARP assisted with 10 Specialist telehealth appointments this year, saving this person 4,160 kms alone in travel and enabling them to continue working throughout the year with complex medical needs.

One woman has delivered a healthy baby this year (3 last year). Alison Guida has provided care coordination involving Infectious Diseases, Pregnancy care, Pharmacy and Paediatrics departments, and even managed to be present at the birth.

Given the population of young HIV women in our area, we expect to be involved in the coordination of future pregnancy care.

We have continued to build on GP engagement from previous years to ensure that all our clients have an ongoing relationship with GP practice. Two additional GPs have completed s100 training at You Yangs clinic in Lara (Dr Cameron Loy and Dr Heidi Zoumbalakis).

HARP continue having strong relationships with state-wide HIV services including peer support through Living Positive Victoria, Victorian AIDS council, CALD services and Positive Women. HARP also work with many other agencies such as NDIS, aged care, housing, drug and alcohol services, dental services and community health to ensure the client receives the right care at the right time and in the right setting.

Professional Development:

- "HIV innovation conference" Sydney August 2018 (Helen)
- "Intensive introduction for Nurses and Allied health professionals: Refugee Health assessment and care" Foundation House October 2018 (Alison)

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- "Ice training for frontline health care workers" October 2017 sponsored by Victoria Dept. of health (Alison, Helen, Cico)
- "Hepatitis B: Advanced Nursing Management and care" ASHM October 2017 (Helen)
- "Beyond undetectable" Nurses and pharmacist meeting Melbourne Feb 2018 (Helen)
- "Making the most of every encounter": The Bouverie centre March 2018 (Alison)
- "Harnessing your influence on the Health care system": Clinical Education and Training Barwon Health May 2018 (Helen)
- "Recognising and managing oppositional defiant disorder": Mental health Professionals' network April 2018 (Alison)
- Western Victorian PHN winter symposium June 2018 (Alison)

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8. BRASH (BARWON REPRODUCTIVE AND SEXUAL HEALTH) CLINIC

Infrastructure

Barwon Reproductive and Sexual Health Clinic is located at The Annexe, 66 Bellarine Street across the road from the main hospital entrance. Within the Geelong Hospital each Tuesday afternoon, with client contact between 2pm – 6.30pm.

Human resources

Rochelle Hamilton (Sexual Health CNC/Manager)

Lisa Campbell (RN/RM)

Dr Amanda Wade (ID Consultant)

A/Prof. Dan O'Brien (ID Consultant)

Dr James Pollard (ID Consultant)

Dr Michael Roberts (VMO)

Dr Bianca Forrester (VMO)

Dr Emma Nicholson (Psychiatrist)

Helen Fay (HARP nurse)

Dr Anne Hotchin (O&G Consultant)

Dr Mark Farrugia (VMO/O&G)

Kath Newton (Receptionist)

Service

The BRaSH clinic continues to expand its services within our community, supporting the needs of our clientele in broad ways. Our HIV service continues to grow and we experienced an increase of demand during the PrEP trial we supported with The Alfred Hospital. We still encounter a high demand of PrEP via the 'Walk-in Clinic', now the trial has ended, with the availability on PBS.

Primarily the 'Walk-in' service continues to be a key feature of the sexual & reproductive health clinic, providing opportunity to clients to attend for sexual health education/screening/treatment/contraceptive management without a formal appointment.

The HIV service continues to run alongside the BRaSH clinic, with the service being provided by the ID consultants & registrars via specific appointment times. This service alone has become increasingly busier, requiring the appointment of 2 ID Consultants in attendance. The HIV clinic is further supported with the valuable assistance of HARP staff members & a Psychiatrist.

The BRaSH service is supported via 2 rotating VMO's & the Clinical Nurse Consultant. We are now supported with a second nurse in the clinic who attends for 4hrs per week. This extra support is valued by all staff.

Medical termination provision continues to be accessed by our community on a regular need. We provide this service 6 out of 8 weeks and find we still need to refer many women on. This is due to both our limitation of service and gestational requirements of the women. This is maintained by the BRaSH clinic and overseen by the O&G Consultant Dr Anne Hotchin and VMO Mark Farrugia.

Referral for termination of pregnancy services occurs with the Nurse Consultant triaging, educating & organising sexual health screens for the clients. Further support and education to the

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clinic includes contraceptive counselling, education & provision; STI/BBV screen and general health checks; sex worker screenings; sexual dysfunction assessment & support; management & counselling.

Multidiscipline service delivery is a major feature for the overall care and well-being of our HIV clientele. NPEP provision continues to play an important role within the clinic. Partner notification, screening, treatment and education, along with results notification & contact tracing requires significant time and management.

Service gaps identified include expanded contraceptive care eg IUD/IUS insertions, with additional clinic time and equipment required to enable this to take place. Appropriate contraceptive care is important across all sexual health delivery for our clientele.

HIV care is provided, on a rotational basis, by Dr Amanda Wade, Dr Daniel O'Brien and Dr James Pollard. (Further ID consultants support this clinic by currently assisting in our extended fortnightly expansion to allow appointments to be offered in a more timely manner. ID Registrars support the consultants on a weekly basis and make themselves available for clinical decisions and results handling between clinics.

Helen Faye, the HARP HIV nurse continues to contribute to the care of the complex HIV clients & work closely with the BRaSH clinic. Further support with HARP clinicians include Cico Lobbert & Alison Guida. Helen is instrumental in driving the Complex Care Meetings on a regular basis, further utilising teleconferencing to support not only our rural clients, but to provide and sustain the vital link with our rural GP's.

Dr Emma Nicholson (Psychiatrist) continues to support our service on a part-time basis which we are grateful for her input and expertise.

The number of client contacts lost due to DNA appointments from these specialists still continues to be significant.

Research

The clinic continues to be part of the sentinel surveillance through the Burnett Institute, and the ACCESS data base via the Kirby Institute NSW.

Rochelle Hamilton continues her studies for Doctorate degree HIV-Contraception and Motherhood in Australia Today: How to Maximise the Best Outcome For All, through collaboration with La Trobe University and Barwon Health.

Clinic Updating/IT Management:

Best Practice software continues in the clinic. We are aiming to have a much needed in-service to all learn how to utilise this software appropriately. Recently the pathology service changed and we experienced significant issues in accessing results in a timely manner. This is a 'work in progress' still.

Further exploration on providing support for our HIV consultants/client documentation is also being worked through. Ideally to provide a more robust & complete way of maintaining client pathology for easier review & subsequent management.

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Health Promotion

Government level

Clinic staff attend Department of Health STI and BBV sectoral events.

Community level

Prevention is a strong emphasis in individual consultations. The CNC participates within community projects specifically with secondary schools around the whole region. Further education is provided to other local agencies with direct service delivery to our youth.

Education/training

Primary Health Network West Vic - GP Education:

Rochelle Hamilton presents as part of the Sexual & Women's Health series, this is around contraception, STI's & sexual dysfunction, including Geelong & Warrnambool regions.

These series for PHNW Vic are attended by GPs, practice nurses, school nurses, educators, allied health network members.

State wide Training

Bianca is part of the training team for the *Doctors in Secondary Schools* State Government initiative. Roles include: design and delivery workshops for GPs and Practice nurses in Adolescent Health, facilitating Youth Participation workshops and a workshop in the regional networking forums. She is part of the implementation team for this program and is engaged in writing Best Practice Guidelines for the Department of Education for the Program.

GP Registrar training

Bianca and Michael are GP registrar tutors and supervisors

Bianca tutors in adolescent health at Melbourne University, through the college of General Practice.

Deakin medical students:

Rochelle Hamilton CNC; GP's Bianca Forrester & Michael Roberts provide support to Medical Students at Deakin University, by way of lectures & mentoring to medical students.

Barwon Health:

Rochelle Hamilton provides tutorials on sexual health assessment, STI's & sexual dysfunction. Bianca Forrester provides tutorials around adolescent contraception. Michael Roberts tutors residents in Sexual Health.

Rochelle, Bianca and Michael present at the ID journal club annually or biannually.

Post Graduate study

Amanda Wade has now completed her PhD in service delivery models for Hepatitis C

<u>Bianca Forrester</u> has now completed her Graduate Diploma of Adolescent Health and Wellbeing.

<u>Rochelle Hamilton</u> continues her studies for Prof. Doctorate degree HIV-Contraception and Motherhood in Australia Today: How to Maximise the Best Outcome For All, through collaboration with La Trobe University and Barwon Health.

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Conferences & Presentations

Rochelle Hamilton:

Presentations include:

Presentations with local agencies and schools around STIs/BBV/Contraception/Sexual Dysfunction 2017/2018

RCOG Conference Singapore (Poster presentation March 2018)

European Contraception and Reproductive Health Conference Budapest (x 2 Poster presentations May 2018)

Conferences:

Attended BBV/STI Sector Forum on the (29th of June 2018)

Lisa Campbell:

Education/Training:

Continues to provide tutorials to medical students Attended foetal growth restriction Education

Education on family violence and Telehealth

Provides contraception education

Student education/support in midwifery and outpatients services

Participates in high risk infant meetings

Sexual health in service- taking a sexual history

Conferences:

Attended BBV/STI Sector Forum on the (29th of June 2018)

Bianca Forrester:

Training:

Bianca completed an education intensive *Effective Clinical Teaching,* as part of the EXCITE program, University of Melbourne.

ACT for Adolescents- Psychological therapies, Dr Louise Hayes, UoM

Conferences:

CERSH, Sexrurality, Regional SRH conference, Lancefield, Victoria

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9 Department of ID list of publications for 2017-18

- 1. Bender J, Chew R, Lin BB, Athan E. Severe Rhabdomyolysis Associated With RSV. Open Forum Infect Dis. 2017 Dec 22;5(1):273. eCollection 2018 Jan.
- 2. Commons RJ, Raby E, Athan E, Bhally H, Chen S, Guy S, Ingram PR, Lai K, Lemoh C, Lim LL, Manning L, Miyakis S, O'Reilly M, Roberts A, Sehu M, Torda A, Vicaretti M, Lazzarini PA. Managing diabetic foot infections: a survey of Australasian infectious diseases clinicians. J Foot Ankle Res. 2018 Apr 10;11:13. eCollection 2018.
- 3. Curran D, Oostvogels L, Heineman T, Matthews S, McElhaney J, McNeil S, Diez-Domingo J, Lal H, Andrews C, Athan E, Berglund J, Campora L, de Looze F, Korhonen T, Leung E, Levin M, Volpi A, Johnson RW; ZOE-50/70 study group. Quality of Life impact of a Recombinant Zoster Vaccine in adults ≥50 Years of Age. J Gerontol A Biol Sci Med Sci. 2018 Jun 27. doi: 10.1093/gerona/gly150. [Epub ahead of print]
- 4. Flentje K, Knight C, Stromfeldt I, Chakrabarti A, Friedman ND. Recording patient body weight in hospitals: are we doing well enough? Int Med J 2017
- 5. Friedman ND, Braun T, Fallach N, Carmeli Y. An analysis of 7 years of blood cultures: epidemiology, microbiology and mortality. Int Med Rev 2017
- 6. Friedman ND, Temkin E, Levit D, Taleb E, Mengesha B, Zaidenstein R, Lazarovitch T, Dadon M, Chen D, Kaye KS, Marchaim D. Towards a Definition for Healthcare-associated Infection. Open Forum Inf Dis, in press 2018
- 7. Heterogeneity in hepatitis C treatment prescribing and uptake in Australia: a geospatial analysis of a year of unrestricted treatment access, *Journal of Virus Eradication*, 2018; 4: e30–e36
- 8. J Masters P, J Lanfranco P, Sneath E, J Wade A, Huffam S, Pollard J, Standish J, McCloskey K, Athan E, P O'Brien D, Friedman ND. <u>Health issues of refugees attending an infectious disease refugee health clinic in a regional Australian hospital</u>. Aust J Gen Pract. 2018 May;47(5):305-310
- 9. Koralur M, Singh R, Varma M, Shenoy S, Acharya V, Kamath A, Stenos J, Athan E, Bairy I. Scrub typhus diagnosis on acute specimens using serological and molecular assays - a 3-year prospective study. Diagn Microbiol Infect Dis. 2018 Jun;91(2):112-117. Epub 2018 Feb 24.
- 10. Macmorran E, Harch S, Athan E, Lane S, Tong S, Crawford L, Krishnaswamy S, Hewagama S. The rise of methicillin resistant Staphylococcus aureus: now the dominant cause of skin and soft tissue infection in Central Australia. Epidemiol Infect. 2017 Oct;145(13):2817-2826.
- 11. Masters PJ, Miller PJ, Sneath E, Wade AJ, Huffam S, Lim K, Pollard J, Standish J, McCloskey K, Athan E, O'Brien DP, Friedman ND. Immigrant health service at a regional Australian centre. *AFP*, 2018, 47(5):305-310
- 12. Masters PJ, Miller PJ, Sneath E, Wade AJ, Huffam S, Lim K, Pollard J, Standish J, McCloskey K, Athan E, O'Brien DP, Friedman ND.Immigrant health service at a regional Australian centre Australian family physician, December 2017, in press.

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- 13. Nick Scott, Joseph S Doyle; David P Wilson; Amanda Wade; Jess Howell; Alisa Pedrana; Alexander Thompson; Margaret E Hellard, Reaching hepatitis C virus elimination targets requires cost-effective health system interventions to enhance the care cascade, *Int J Drug Policy*, 2017 (47) 107 116
- 14. O'Brien DP. <u>Unlocking of the secrets of Mycobacterium ulcerans disease transmission.</u> Lancet Planet Health. 2017 May;1(2):e52-e53.
- 15. O'Brien DP, Athan E, Blasdell K, De Barro P. <u>Tackling the worsening epidemic of Buruli ulcer in Australia in an information void: time for an urgent scientific response.</u> Med J Aust. 2018 Apr 16:208(7):287-289.
- 16. O'Brien DP, Friedman ND, Hughes AJ, Walton Al, Athan E. Antibiotic complications during the treatment of *Mycobacterium ulcerans* disease in Australian patients. Int Med J 2017; 47:1011-1019.
- 17. O'Brien DP, Friedman ND, McDonald A, Callan P, Hughes A, Walton A, Athan E. Wound healing: Natural history and risk factors for delay in Australian patients treated with antibiotics for Mycobacterium ulcerans disease. PLoS Negl Trop Dis. 2018 Mar 19;12(3):e0006357. eCollection 2018 Mar.
- 18. O'Brien DP, Wynne JW, Buultjens AH, Michalski WP, Stinear TP, Friedman ND, Hughes A, Athan E. Exposure Risk for Infection and Lack of Human-to-Human Transmission of Mycobacterium ulcerans Disease, Australia. Emerging infectious diseases 2017;23(5):837.
- 19. O'Donnabhain R, Friedman ND. What makes a good doctor? Int Med J 2018, in press. Study Evaluating the Efficacy and Safety of a Human Monoclonal Antibody, REGN2222, for the Prevention of Medically Attended RSV Infection in Preterm Infants"DAP-PEDBAC-11-02 A Comparative Evaluation of the Safety and Efficacy of Daptomycin Versus Standard of Care in Paediatric Subjects Two Seventeen Years of Age With Bacteremia caused by *Staphylococcus aureus*
- 20. Pericàs JM, Messina JA, Garcia-de-la-Mària C, Park L, Sharma-Kuinkel BK, Marco F, Wray D, Kanafani ZA, Carugati M, Durante-Mangoni E, Tattevin P, Chu VH, Moreno A, Fowler VG Jr, Miró JM; International Collaboration on Endocarditis Microbiology Investigators. Influence of vancomycin minimum inhibitory concentration on the outcome of methicillin-susceptible Staphylococcus aureus left-sided infective endocarditis treated with ant staphylococcal β-lactam antibiotics: a prospective cohort study by the International Collaboration on Endocarditis. Clin Microbiol Infect. 2017 Aug;23(8):544-549.
- 21. Scott N, Hainsworth SW, Sacks-Davis R, Pedrana A, Doyle J, Wade A, Hellard M,
- 22. Sethwala A, Wang J, Sturm E, Collins KL, O'Donnabhain R, Friedman ND. Predictive value of symptoms, signs and biomarkers for predicting CTPA results. Int Med J 2017
- 23. Sturm E, Tai A, Lin B, Kwong J, Athan E, Howden BP, Angliss RD, Asaid R, Pollard J. Bilateral osteomyelitis and liver abscess caused by hypervirulent Klebsiella pneumoniae- a rare clinical manifestation(case report). BMC Infectious Diseases. 2018: 18:380
- 24. Tai AYC, Athan E, Friedman ND, Hughes A, Walton A, O'Brien DP. Increased Severity and Spread of Mycobacterium ulcerans, Southeastern Australia. Emerg Infect Dis. 2018 Jan;24(1). Epub 2018
- 25. Wade AJ, Doyle JS, Draper B, Iser D, Roberts SK, Kemp W, Petrie D, Scott N, Higgs P, Agius PA, Roney J, Stothers L, Gane E, Stedman C, Thompson AJ, Hellard ME, A randomised controlled trial of community-based provision of direct acting antiviral therapy for hepatitis C: protocol and challenges, *Trials*, accepted June 2018.
- 26. Wade AJ, McCormack A, Roder C, McDonald K, Davies M, Wardrop M, Athan E, Hellard ME, Aiming for elimination: outcomes of a consultation pathway supporting regional general



- practitioners to prescribe direct acting antiviral therapy for hepatitis C, *Journal of Viral Hepatitis*, April 16, 2018
- 27. Wright A, Otome O, Harvey C, Bowe S, Athan E. <u>The Current Epidemiology of Injecting Drug Use-Associated Infective Endocarditis in Victoria, Australia in the Midst of Increasing Crystal Methamphetamine Use.</u> Heart Lung Circ. 2018 Apr;27(4):484-488.
- 28. Yeramilli A, Tay E, Stewardson A, Kelley P, Bishop EJ, Jenkin G, Starr M, Trevillyan J, Hughes AJ, Friedman ND, O'Brien DP, Johnson PDR. The location of Australian Buruli ulcer lesions implications for unravelling disease transmission. PLOS NTD 2017, 11(8):e0005800

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10. DEPARTMENT OF INFECTIOUS DISEASES PERSONNEL

Director, Department of Infectious Disease

E Athan MBBS, FRACP (Infec Dis), MPH, MD

Deputy Director, Department of Infectious Disease.

D O'Brien MBBS, FRACP, (Infec Dis), Dip Anat

Infections Diseases Physicians

A Hughes MBBS, FRACP (Infec Dis)

D Friedman MBBS (Hon) FRACP, MD

S. Huffam MBBS, MPH&TM, FAChSHM, FRACP (Infec Dis)

A Wade MBBS (Hons) FRACP

A Walton MD, FRACP, FRCPA

J Pollard MBBS, FRACP

R Cowan MBBS, PhD FRACP

Y Hersusianto MBBS, FRACP, FRCPA.

A Tai MBBS, BmedSc (hons), FRACP (Infec Dis)

Sexual Health Physicians

S. Huffam MBBS, MPH&TM, FAChSHM, FRACP (Infec Dis)

B Forrester MBBS (hons), FRACGP, DFFP (uk)

M Roberts MBBS, DRACOG, DGUM

Clinical Trial Coordinators

Alana Sarah, BSc (Hons) GCertCR (Graduate Certificate of Clinical Research), ACRP Certified Clinical Research Coordinator, Advanced Dip of Management

Bree Sarah, BSc (Hons), Advanced Dip of Management, ACRP Certified Clinical Research Coordinator

Caroline Gay, BSc (Biol) Graduate Diploma of Immunology

Jo Chambers, BN Div 1RN, GCertDE (Graduate Certificate in Diabetes Education)

Sue Lamb, BSc (Biol) & BAppSc (Medical Radiations - Nuclear Medicine), ACRP Certified Clinical Research Coordinator

Kate Ellis, BN Div 1 RN

Antimicrobial Stewardship Pharmacist

Alicia Neels, B.Pharm (Hons) GradCertPharmPrac

Clinical Nurse Consultants

P Simpson, RN, BA Hons, MSc (Infection Control), Acc HIV Counsellor

K Styles, RN, BN, Cert Sterilisaton & Inf Control, Acc HIV Counsellor, Cert IV Workplace Assessment & Training

A Gray, RN, RM, Cert Sterilisation & Inf Control, Nurse Immuniser, ACC HIV Counsellor, Cert iv Training & Assessment, Adv Dip Business Management, Adv Dip Human Resources Management

M Wardrop, RN, BN, Cert Sterilisation & Inf Cont, Acc HIV & HCV Counsellor, Reg Sick Children's Nurse (UK), Cert IV Workplace Assessment & Training



P Radalj, RN, Cert of Intensive Care, Grad Dip Critical Care Nursing, Graduate Certificate in Infection Control Nursing

J Heath, MPH, Credentialed Infection Prevention Practitioner (CICP) RN, BN, Gazetted Mediator DSCV, Cert S& IC, Cert of Intensive Care, Grad.Dip in Public Health, Cert IV Workplace Assessment & Training.

S Streat, RN, Certificate of family planning, BA. Certificate of Midwifery

M Heath, RN, Masters Professional Education and Training (MPET), Ba Com (Nursing Management, Administration), Cert of Crit Care, Acc HIV & HCV Counsellor

J Butwilowsky, RN, Grad Dip Community Health Nursing

H Fay, RN, Grad Dip Palliative Care, Acc HIV & HCV pre-/post testing Alison Guida, Masters of Public Health, Grad Dip Adol Health & Welfare, BN Cico Lobbert, Bachelor of Social Work

R Hamilton, RN; Reg Midwife; Family Planning Cert 1 & 2; Accred PapTest Provider; Grad Dip Community Health Nursing; Masters Health Science (Sexual Health); Accred HIV/HepC Counsellor; Cert in Counselling HIV/AIDS (Family Therapy) Bouverie Centre; Cert IV Workplace Training & Assessment; Cert in Leadership Management & Development; Clinical Tutor Deakin Medical School (postgraduate program), PhD

Administrative Support

Angela Weerasekera, B.Sc. (Microbiology) (Deakin), Dip Business Tertiary Studies (Deakin), Masters in Health Policy Administration (Monash) (incomplete)



11. Budget Position

Cost Centre	17/18 Actuals	17/18 Budgets	17/18 Variance
Revenue			
A5602 Infectious Diseases	150,076	38,696	111,380
C1102 Sexual Health Clinic	144,827	121,013	23,814
C1103 Liver Clinic	55,062	70,172	(15,110)
C1104 Infectious Diseases Clinic	7,888	9,159	(1,271)
P0152 Infection Prevention	4,993	4,993	0
Service P0879 Infectious Disease	,,,,,	1,000	-
Registrar	303	0	303
Z2107 PPF - Infectious Diseases	2,001	8,058	(6,057)
Z8120 Dept Infectious Diseases	40,000	8,000	32,000
Total Revenue	405,149	260,090	145,059
Labour			
A5602 Infectious Diseases	(960,170)	(1,005,353)	45,183
C1102 Sexual Health Clinic	(112,836)	(142,547)	29,710
C1103 Liver Clinic	(369,874)	(360,939)	(8,935)
C1104 Infectious Diseases Clinic	(67,390)	(40,836)	(26,555)
P0152 Infection Prevention	(554,052)	(545,392)	(8,661)
Service P0879 Infectious Disease	,	, ,	, ,
Registrar	(23,490)	(157,205)	133,715
Z2032 Liver Clinic Research	(15,688)	(45,000)	29,312
Z2107 PPF - Infectious Diseases	(124)	0	(124)
Total Labour	(2,103,625)	(2,297,271)	193,646
Non-Labour			
A5602 Infectious Diseases	(122,716)	(105,160)	(17,556)
C1102 Sexual Health Clinic	(4,669)	(1,000)	(3,669)
C1103 Liver Clinic	(32,203)	(21,076)	(11,127)
C1104 Infectious Diseases Clinic	(57,429)	(57,977)	548
P0152 Infection Prevention	70,511	72,710	(2,199)
Service			
Z2032 Liver Clinic Research Z2107 PPF - Infectious Diseases	(26,549)	(45,334)	18,785
	(3,072)	(8,058) (8,000)	4,986
Z8120 Dept Infectious Diseases Total Non-Labour	(40,160) (216,287)	(173,895)	(32,160) (42,393)
Grand Total	(1,914,763)	(2,211,075)	296,312