31, 2014. Baseline demographic characteristics, results of TST and LTBI therapy were collected. This cohort was compared with a pre-intervention cohort of sporadically tested patients from January 1, 2008–December 31, 2009.

Results. During the post-intervention period, 170 patients with MM had a TST. At the time of TST, 113 (66.4%) patients had a lymphocyte count ≥1.0 × 10^9/L. Fourteen patients (8.2%) had positive Results. There were also 16 patients with radiographic evidence of prior granulomatous disease on either CXR or chest CT In these 16 patients, 12 (75%) with positive radiographic findings had negative TST Results. Notably, 7//12 (58.3%) had a lymphocyte count ≤1.0 × 10^9/L at the time of testing. Eleven patients with positive TST results and two with positive radiographic results alone were treated for LTBI. There was one case of active TB diagnosed in a patient with a negative TST. There were no TSTs performed in the pre-intervention cohort and no cases of active TB were documented.

Conclusion. A significant portion of our MM patients may benefit from LTBI therapy. A targeted program combining evaluation of host risk factors, imaging findings and screening tests would optimize LTBI diagnosis and management and may be effective in preventing the development of active TB.

Disclosures. **All authors:** No reported disclosures.

1578. Back to Bactrim–Utilizing Preferred Prophylaxis Strategies in Immunocompromised Hosts Via a Trimethoprim-Sulfamethoxazole Rechallenge Program

Olivia Smibert, Bachelor of Medicine, Bachelor of Surgery[1]; Karen Urbancic, BPharm[2]; Abby Douglas, MBBS[1]; Misha Devchand, BPharm[3]; Monica Slavin, MBBS FRACP MD[4] and Jason Trubiano, MBBS/BBioMed Sci FRACP[5]; [1]Infectious Diseases and Microbiology, Peter MacCallum Cancer Center, Melbourne, Australia, [2]Austin Health, Heidelberg, Australia, [3]Austin Hospital, Melbourne, Australia, [4]Peter MacCallum Cancer Centre, Melbourne, Australia and [5]Department of Medicine, University of Melbourne, Melbourne, Australia

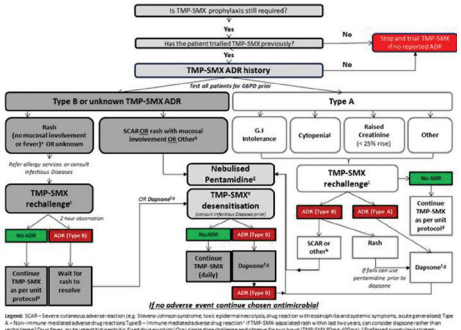
Session: 151. Viruses and Bacteria in Immunocompromised Patients
Friday, October 5, 2018: 12:30 PM

Background. Trimethoprim sulfamethoxazole (TMP-SMX) is the preferred agent for *Pneumocystis jirovecii* pneumonia prophylaxis in immunocompromised hosts (ICH). However, TMP-SMX is frequently avoided due to an adverse drug reaction (ADR) history. We report on a novel multicentre programmatic approach to TMP-SMX ADRs in ICH.

Methods. We reviewed ICH with a reported TMP-SMX ADR referred to the conjoint antibiotic allergy services at Austin Health (Melb, Aus) and Peter MacCallum Cancer Centre (Melb, Aus) between April 2015 and May 2018. ICH were defined as patients with a history of cancer, transplantation, autoimmune condition or prednisolone use > 20 mg day for 1 month. Patients were assessed and managed as per the TMP-SMX ADR protocol (Figure 1).

Results. Eighteen patients were assessed, of which 16 (89%) underwent allergy testing (6;89% patch testing [PT] and/or 9;56% oral rechallenge [OC]) and 2 (11%) successful desensitization. Of those that underwent allergy testing, 10 (63%) were cancer patients, four (25%) solid-organ transplant recipients, one (6%) HIV and one (6%) multiple sclerosis. The median age was 59 (IQR 49.5, 65) and predominate phenotypes were severe cutaneous adverse drug reactions (4; 22%) and maculopapular exanthema (MPE) (11; 61%). Eighty-nine percent (8/9) of OC patients tolerated TMP-SMX challenge. One patient experienced a recurrence of a mild self-resolving localized rash following TMP-SMX OC. Of those seven patients that did not undergo OC, two (29%) were PT positive and five (72%) histories of severe or recent T-cell-mediated allergy. Three of the seven patients who did not undergo OC received and tolerated dapsone.

Conclusion. A novel TMP-SMX ADR protocol was able to identify ICH with severe allergy phenotypes and provide alternative antibiotic sulphonamide therapeutic options, whilst safely rechallenging the majority with low-risk TMP-SMX ADR histories.



Disclosures. **All authors:** No reported disclosures.

1579. Evaluation of MATCH: an Electronic Individual Patient-Focused Management System Aimed at Preventing Cytomegalovirus Disease Following Solid Organ Transplantation

Christina Ekenberg, MD[1]; Caspar Da Cunha-Bang, MD[2]; Isabelle Paula Lodding, MD[1]; Søren Schwartz Sørensen, MD[3]; Henrik Sengeløv, MD[2]; Michael Perch, MD[4]; Allan Rasmussen, MD[5]; Finn Gustafsson, MD[6]; Neval Ete Wareham, MD[1]; Nikolai Kirkby, MSc[7]; Jesper Kjær, MSc[1]; Marie Helleberg, MD[1] and Jens D Lundgren, MD[1]; [1]Centre of Excellence for Health, Immunity and Infections (CHIP), Department of Infectious Diseases, Rigshospitalet, University of Copenhagen, Copenhagen, Denmark, [2]Department of Haematology, Rigshospitalet, University of Copenhagen, Copenhagen, Denmark, [3]Department of Nephrology, Rigshospitalet, University of Copenhagen, Copenhagen, Denmark, [4]Department of Cardiology, Section for Lung Transplantation, Rigshospitalet, University of Copenhagen, Copenhagen, Denmark, [5]Department of Surgical Gastroenterology, Rigshospitalet, University of Copenhagen, Copenhagen, Denmark, [6]Department of Cardiology, Rigshospitalet, University of Copenhagen, Copenhagen, Denmark, [7]Department of Clinical Microbiology, Rigshospitalet, University of Copenhagen, Copenhagen, Denmark

Session: 151. Viruses and Bacteria in Immunocompromised Patients
Friday, October 5, 2018: 12:30 PM

Background. Cytomegalovirus (CMV) infection is common among solid-organ transplant (SOT) recipients and may cause CMV disease, if not promptly treated. Strategies to prevent CMV disease include chemoprophylaxis and pre-emptive monitoring and treatment of emerging subclinical infection. To optimize the implementation of these strategies as part of routine care, we developed and implemented a proactive and patient-tailored CMV management system for SOT patients (the MATCH program) in our center. Two key performance characteristics of success of MATCH are diagnosing CMV at low levels and avoiding CMV disease at diagnosis; these characteristics are assessed here before (2007–2010), during (2011–2012) and after (2013–2015) the implementation of the MATCH program.

Methods. In MATCH, SOT recipients follow a personalized, yet standardized, plan for monitoring, prophylaxis and pre-emptive therapy depending on underlying risk for CMV infection. The plan is composed in accordance with the recipient's a priori risk as to CMV IgG serostatus and is continually updated during the post-transplant course according to patient´s current situation. Each individual patient plan is produced and implemented by a rule-based artificial intelligence (AI) platform, harvesting relevant real-time data from electronic medical records. Via predefined algorithms, plans and revisions are created and alerts are generated in case of missed planned monitoring for or molecular detection of CMV infection. Prior to its implementation, prevention of CMV disease was left at the discretion of the individual physician.

Results. A total of 603, 357, and 531 patients received an SOT before, during and after implementing MATCH, resp., of whom 88 (14.6%), 56 (15.7%) and 119 (22.4%) developed CMV infection within the first year of transplantation (Table 1). Among those with CMV infection, the % with high viral load decreased as did the % with CMV disease at the time of diagnosis of CMV infection during and after the implementation of MATCH relative to before (Figure 1).

Conclusion. The implementation of a rule-based AI platform guiding routine prevention of CMV disease among SOT recipients was associated with improved CMV-specific outcome, indicating its ability to identify the CMV infection sooner after onset and before causing disease.

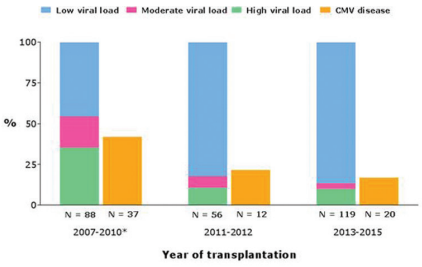


Figure 1. Prevalence of grouping of CMV viral load and CMV disease at diagnosis of CMV infection within the first year of transplantation before, during and after implementation of the MATCH program. Groupings of CMV viral load were decided prior to the analyses as rough trends for risk of CMV disease as follows: green = high viral load (>27,300 IU/mL), pink = moderate viral load (9,100 - 27,300 IU/mL) and blue = low viral load (<9,100 IU/mL).

Table 1. Characteristics of SOT-recipients with a first episode of CMV infection within the first year of transplantation before, during and after implementation of the MATCH-programme.

Year of transplantation	2007-2010 (before implementation)	2011-2012 (during implementation)	2013-2015 (after implementation)
Recipients with a first episode of CMV infection, N(% of total no. of SOT)	88 (14.6)	56 (15.7)	119 (22.4)
Sex, N(%)			
Male	60 (68.2)	28 (50.0)	69 (58.0)
Female	28 (31.8)	28 (50.0)	50 (42.0)
Median age at transplantation (IQR), years	52 (38-59)	53 (41-59)	49 (38-58)
Transplant type, N(%)			
Heart	3 (3.4)	3 (5.4)	6 (5.0)
Kidney	43 (48.9)	25 (44.6)	41 (34.5)
Kidney-Pancreas	0	0	2 (1.7)
Liver	20 (22.7)	10 (17.9)	34 (28.6)
Lung	22 (25.0)	18 (32.1)	36 (30.3)
Donor/recipient CMV IgG serostatus at transplantation, N(%)			
D+/R-	25 (28.4)	27 (48.2)	53 (44.5)
D+/R+	23 (26.2)	22 (39.3)	44 (37.0)
D-/R+	3 (3.4)	3 (5.4)	17 (14.3)
D-/R-	1 (1.1)	0	3 (2.5)
Unknown	36 (40.9)	4 (7.1)	2 (1.7)
Median viral load of the first positive CMV PCR (IQR), IU/mL	11,421 (2,821 - 55,283)	637 (328 - 3,822)	637 (273 - 2,002)

Disclosures. **All authors:** No reported disclosures.