Pneumocystis jirovecii pneumonia is an uncommon and life-threatening disease that can occur following hematopoietic stem cell transplantation (HSCT). Trimethoprim-sulfamethoxazole (TMP-SMX) prophylaxis greatly reduces the incidence of PJP. We aim to determine what factors contribute to the development of PJP following HSCT where TMP-SMX prophylaxis is widely used.

Methods: We performed a single-center, retrospective case series of HSCT recipients from January 1, 2012 to December 31, 2018. Subjects had clinical symptoms and radiographic evidence for PJP along with at least one positive Pneumocystis test obtained from bronchoalveolar lavage (BAL) including direct fluorescence antibody (DFA), quantitative polymerase chain reaction (qPCR), cytology, and pathology.

Results: 1111 subjects underwent HSCT; of whom, 25 (2.2%) met inclusion criteria and were treated for PJP. 6 were autologous and 19 were allogeneic HSCT recipients (1.23% and 3.05% of total autologous and allogeneic HSCT, respectively). All allogeneic HSCT recipients received in vivo T-cell depletion. Median duration from autologous and allogeneic HSCT to PJP diagnosis were 138 days (range 20 to 348) and 346 days (range 41 to 771), respectively. PJP qPCR was positive in all samples tested (n = 20, range < 84 to 14900). DFA was positive in 6 (28%). Death from pneumonia occurred in 2 subjects; 11 (44%) required ICU stay, and 7 (27%) required intubation. At diagnosis, 3 subjects had relapse of underlying disease and 10 were on immunosuppression. 12 were on PJP prophylaxis (autologous HSCT), 10 received post-transplant prophylaxis (allogeneic). 5; only 2 subjects were on TMP-SMX. Cytomegalovirus (CMV) viremia was detected in 9 subjects (36%) prior to PJP diagnosis: PJP had higher median total lymphocyte count and % lymphocytes were 5.1 × 10^9 cells/μL (range 1.4 to 38.5 × 10^9 cells/μL) and 9.6% (range 1.1 to 29.5%), respectively.

Conclusion: PJP is an uncommon (2.2% of the study population) complication of HSCT while receiving PJP prophylaxis and in the absence of disease relapse, CMV reactivation, or ongoing immunosuppression. Presentation is often delayed in this population; a high degree of clinical suspicion should prompt diagnostic evaluation using a combination of laboratory tests on BAL fluid.

Disclosures. All authors: No reported disclosures.

2696. The Impact of Universal Deceased Donor Screening on Donor-Derived Toxoplasmosis in Solid-Organ Transplantation: A Retrospective Case Series

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Methods: All potential Toxoplasma donor-derived transmission events adjudicated by DTAC from 2008 to 2018 were reviewed. A standardized classification algorithm was used to adjudicate each event as proven, probable, possible, unlikely, excluded or intervention without disease transmission.

Results: Twenty-eight potential DDT events were reported between 2008 and 2018. Proven or probable (p/p) DDT developed in 16 organ recipients from 15 donors. In the 9 years prior to the new testing requirement (January 2008–March 2017) 11 organ recipients from 10 donors had p/p DDT (0.13 transmissions per 1,000 donors). In the first 21 months of the new testing requirement 5 recipients from 5 donors had p/p DDT (0.27 transmissions per 1,000 donors), rate ratio 2.19; 95% CI 0.577, 9.09; p = 0.18. 10.2% of 18,328 donors tested between April 6, 2017 and December 31, 2018 were seropositive. All authors: No reported disclosures.