



aGvHD

Outpatient surveillance blood cultures in patients with acute graft-versus-host disease receiving high-dose steroids

 Anna Bartus | Feb 13, 2019

On 31 January 2019, [Erica Stohs](#) from the Department of Medicine, [University of Washington School of Medicine](#), Seattle, WA, USA, and colleagues [published](#) in the *Biology of Blood and Marrow Transplantation*, the results of a retrospective study assessing the value of weekly surveillance blood cultures (SBCs) drawn in an outpatient setting from patients receiving hematopoietic cell transplant (HCT) and high-dose steroids. The researchers hypothesized that all positive outpatient surveillance cultures would be low-pathogenicity gram positive bacteria which would lead to additional vancomycin therapy.

Patients and methods

- N = 127 patients undergoing transplantation
- Median age: 52 years (range, 41–59)
- Blood cultures were collected and analyzed
- Patients were treated with a high-dose of steroids (prednisone-equivalent doses ≥ 0.5 mg/kg/day) for acute graft-versus-host disease (GvHD)
- Initial glucocorticoid dose:
 - 2 mg/kg/day, n = 26 (21%)
 - 1 mg/kg/day, n = 65 (46%)
 - 5 mg/kg/day, n = 36 (28%)
- SBCs were taken weekly from central venous catheters (CVCs) in the outpatient setting

Key findings

- N = 1015 SBCs were collected and analyzed
- N = 97 patients (76%) had no positive cultures
- N = 26 patients (20%) had one positive culture
- N = 4 patients (3%) had > 1 positive culture
- N = 42 bacteria were isolated from 36/1015 cultures (3.5%) in 30 unique patients
- Coagulase-negative Staphylococcus was the most frequently observed organism: 25/1015 (2.5%)
- Gram-negative organisms were rarely detected: 4/1015 (0.4%)

- Most patients received antibiotics with positive surveillance cultures: 33/36 (92%)
- Six patients were hospitalized for treatment
- Vancomycin was the most frequently used antibiotic: 256/376 (68%) total days of antibiotic was administered with a median duration of 10 days (range, 7–14)

In summary, weekly outpatient SBCs collected from asymptomatic patients receiving high-dose steroids for the treatment of acute GvHD after HCT were found to be infrequently positive. The authors added that “surveillance blood cultures also led to excess antibiotic exposure and costs, suggesting benefits of such ambulatory screening may be of limited value in this setting.”

Reference

1. Stohs E. et al. Limited utility of outpatient surveillance blood cultures in hematopoietic cell transplant recipients on high-dose steroids for treatment of acute graft-versus-host-disease. Biol Blood Marrow Transplant. 2019 Jan 31. DOI: [1016/j.bbmt.2019.01.031](https://doi.org/10.1016/j.bbmt.2019.01.031). [Epub ahead of print].

© 2019 Scientific Education Support Ltd. This PDF is provided for personal use only. For wider or commercial use, please seek permission from secretariat@scientificeducationsupport.com and attribute the source as: <https://gvhdhub.com/medical-information/outpatient-surveillance-of-blood-cultures-in-patients-with-acute-graft-versus-host-disease-receiving-high-dose-steroids>