

The utility of routine surveillance blood cultures in asymptomatic hematopoietic stem cell transplant patients.

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Public Summary:

Scientific Abstract:

INTRODUCTION: Surveillance blood cultures (BCs) are often obtained in hematopoietic stem cell transplant (HSCT) patients for earlier detection of blood stream infections (BSI). The major aim of this study was to determine the utility of the current practice of obtaining surveillance blood cultures from asymptomatic transplant patients upon admission for the preparative regimen. METHODS: We conducted an 8-year retrospective study of all patients consecutively admitted to the hospital for a HSCT from 2000 to 2008. RESULTS: In this retrospective analysis, surveillance BCs from 191 eligible patients were analyzed. The incidence of definitive BSIs was 0.52% (1/191) with 6 BCs from other HSCT patients growing probable contaminants. The overall incidence of positive surveillance BCs was 2.9% (7/238) for the BCs taken and 3.7% (7/191) for patients cultured with coagulase negative staphylococcus being isolated from 6 of the 7 patients. The probability of increased BSI after transplantation in patients with initial positive surveillance BCs compared with those having negative BCs, was not significant (P=0.675). No infection-related mortality was observed during the first 60 days posttransplantation in these patients. CONCLUSIONS: The frequency of positive surveillance BCs in asymptomatic HSCT patients at the time of hospital admission for transplant seems to be extremely low. These results, if confirmed by larger studies, show the reduced utility of obtaining surveillance BC in asymptomatic patients before administration of the conditioning regimen and the need for re-evaluation of this practice.

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