Background
- Invasive fungal disease (IFD) is a major cause of mortality and morbidity among hematological and organ transplant patients.
- Aspergillosis is the most common infection type caused by molds in patients undergoing hematopoietic stem cell transplant or solid organ transplant, and is associated with high mortality in these patient groups.1,2
- Rare fungal species, such as Scedosporium apiospermum, have limited treatment options and are associated with high mortality rates.3,4
- Isavuconazole, a broad-spectrum triazole antifungal, isavuconazonium sulfate, the water-soluble prodrug of the broad-spectrum, has been approved by the U.S. Food and Drug Administration for the treatment of adults with invasive aspergillosis (IA) and invasive mucormycosis.5
- In addition, the European Commission has approved isavuconazole for the treatment of adults with IA and adults with mucormycosis for whom amphotericin B is not appropriate.6
- The objective of this study was to assess the in vitro activity of isavuconazole by comparing minimum inhibitory concentration (MIC) strips with the European Commission on Antimicrobial Susceptibility Testing (EUCAST) broth microdilution reference method.

Methods
- 62 Aspergillus spp., 18 A. fumigatus, 9 A. terreus and 8 A. niger were tested. Scedosporium apiospermum clinical isolates were obtained from bronchoalveolar lavage, sputum and bronchial aspirate.
- All isolates were tested for susceptibility to isavuconazole using the EUCAST broth microdilution method (E Def 5).

Results
- Isolates were cultured for 48 hours at 35°C; MIC was judged by visual evidence of no growth.
- 45 isolates were tested using a "MIC Test Strip Isavuconazole" (Liofilchem, Italy).
- Isolates were cultured for 48 hours at 35°C; MIC was judged by visual evidence of no growth.

Table 1 (continued)

Table 1. Isolate summary and susceptibility test results

Table 2. Comparison between EUCAST broth microdilution method and MIC strips

Conclusions
- In this study, isavuconazole MICs against S. apiosepsimum were comparable with those obtained for A. niger.
- Isavuconazole MIC strips showed agreement with the EUCAST reference method.
- Isavuconazole MIC strips could be a useful alternative for susceptibility testing of Aspergillus spp. and S. apiosepsimum.

References
1. Basilea Pharmaceutica International Ltd, Basel, Switzerland
2. Poster development support was provided by Barrie Anthony, PhD, CMPP, and Priyanka Narang, PhD, Envision Scientific Solutions.
3. Isavuconazole MIC strips could be a useful alternative for susceptibility testing of Aspergillus spp. and S. apiosepsimum.
4. The MIC of the strips were read at 80% growth inhibition after 48 hours incubation at 35°C.
5. For the analysis of essential agreement, values from the MIC strips were rounded up to the next corresponding dilution for the broth microdilution.
6. The percent of agreement between the two methods was calculated within a ±1 fold dilution.
7. Isavuconazole MIC strips showed agreement with the EUCAST reference method.
8. Isavuconazole MIC strips could be a useful alternative for susceptibility testing of Aspergillus spp. and S. apiosepsimum.