OBJECTIVE: To apply a sequencing-based molecular method to identify clinically relevant fungi to species level.

METHOD: Thirty-six fungi not identifiable at a species level by a conventional approach and 39 invasive clinical samples were prospectively evaluated. The results were compared with those obtained by conventional methods.

RESULTS: Molecular methods allowed rapid and reliable identification of fungi at species level, including both from organisms grown in culture and those in clinical samples.

CONCLUSION: Molecular methods show clear advantages for fungal identification, including rapid identification at species level and high negative predictive value.