OBJECTIVES: The PROWESS study (N = 1690) demonstrated that drotrecogin alfa (activated) significantly reduced 28-day mortality when added to conventional therapy in the treatment of severe sepsis. The aim of the current study was to generate and compare estimates of cost-effectiveness of drotrecogin alfa (activated) in three European counties: Germany (GM), Austria (AS) and Switzerland (CH). METHODS: We developed a core decision analytic model and performed cost-effectiveness calculations from the (national) health service payer’s perspective. Local life-tables were applied to estimate long-term survival benefits from hospital trial mortality (ARR = 6.1%). Trial resource use (ICU stay, duration of organ support, hospital stay, drotrecogin alfa [activated]) was valued using published country-specific costs. Cost-effectiveness was expressed as the incremental cost per life year gained (LYG). Analysis was repeated using the resource use patterns from local non-trial data. Analysis was repeated using the resource use patterns of European trial patients only (N = 307); and using the resource use patterns from local non-trial data. Analysis was repeated for patients with a high risk of mortality (two or more organ dysfunction at baseline, ARR = 7.3%) RESULTS: Cost effectiveness was estimated at €14,400 (GM) and €13,400 (AS) LYG (€22,400 and €24,700 discounting LYG at 3%) Restricting analysis to high risk patients produced better cost-effectiveness due to greater ARR: €10,400 (GM) and €11,300 (AS) (€13,500 and €15,100 discounting LYG at 3%), Estimates using European trial patients’ resource use or country-specific resource use showed consistent cost-effectiveness. The results for Switzerland are also presented and compared. CONCLUSIONS: The cost effectiveness of drotrecogin alfa (activated) is driven by the drug cost and lives saved, which were assumed constant for each country. The trial showed only small increases in other resource use associated with increased numbers of survivors. Applying local life tables, unit costs, or patterns of care did not alter the conclusion that drotrecogin alfa (activated) is a cost effective treatment for severe sepsis.

OBJECTIVES: Linezolid is a new antibiotic, active against Gram-positive bacteria and available in intravenous and oral formulations with a bioavailability of 100%. The aim of this analysis is to carry out an economic evaluation of linezolid (LZD) vs teicoplanin (TEI) for the treatment of infections produced by Gram-positive bacteria. METHODS: A cost-effectiveness analysis was performed by building a decision analytical model. Effectiveness data were obtained from a multicenter randomized trial showing that LZD had significantly better efficacy than TEI (95.5% vs 87.6%, p = 0.005) in treating infections caused by Gram-positive bacteria (ICCAC 2001; poster L-1481). Healthcare resource utilization after the use of both antibiotics was taken from the aforementioned clinical trial (ECCMID 2002; poster P-486) and a local expert panel. Only direct medical costs were included in the model (drug acquisition, length of hospital stay, nursing time for administration of drugs, diagnostic procedures and treatment of therapeutic failures). Drug acquisition cost data were obtained from official sources while the rest of the data were taken from a national healthcare costs database. The perspective selected for this analysis was hospital assistance and the time horizon chosen was for 28 days, the maximum time that patients were hospitalized in the referenced clinical trial. RESULT: Total cost/patient was lower with LZD versus TEI (€5,462.6 vs €5,739.8) as well as the cost/efficacy ratio: €5,720 vs €6,552.3 per each successfully cured patient. CONCLUSIONS: This pharmacoeconomic analysis demonstrates that LZD is a more efficient therapeutic option than TEI, as it presents a lower cost/effectiveness ratio. Moreover, as LZD produces better clinical results with less associated costs, it is a “dominant” option over TEI and therefore LZD could be considered as the therapeutic alternative of choice in the treatment of infections caused by Gram-positive bacteria in the hospital.

OBJECTIVES: This study evaluated prescribing patterns and associated outcomes in patients at risk for or diag-