Evaluating the economic implications of antibody and anti-bodies-mediated rejection in renal transplant recipients: the role of once-daily, prolonged-release tacrolimus in the UK-setting

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Introduction
- Although short- and long-term graft survival after renal transplantation improved substantially during the 1990s and 2000s, recent studies suggest that graft survival has not improved to the same extent as short-term rates, and that improvements in acute rejection rates do not necessarily predict better graft survival.
- Antibody-mediated rejection (AbMR) has been highlighted as a key clinical factor influencing these trends. Therefore, improved acute rejection rates do not necessarily predict better graft survival.
- Despite recent improvements in acute rejection rates, long-term graft survival has not improved to the same extent as short-term rates, and that improvements in acute rejection rates do not necessarily predict better graft survival.

Methods
- A decision tree model was developed to project costs and outcomes over a 5-year time horizon.
- The model included a Markov process for estimating the incidence of events, based on transition probabilities derived from the literature.
- A base-case scenario was developed to simulate the outcomes of treatment with AbMR.
- Sensitivity analyses were conducted to assess the robustness of the results.

Results
- The base case scenario showed that AbMR and its associated costs were significantly higher in the non-adherent group compared to the adherent group.
- Sensitivity analyses confirmed the robustness of the results.

Conclusions
- The model showed that AbMR treatment with AbMR was associated with improved graft survival and reduced costs.
- The results highlight the importance of adherence to AbMR treatment.
- The model provides valuable insights into the economic implications of AbMR treatment in the UK setting.

References