AB074. 134. A trainee's experience establishing a porcine *ex-vivo* lung perfusion model in Ireland

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Background: Porcine isolated lungs are currently the gold standard model for studying human lung diseases. Described here is a junior surgical trainees experience in establishing a porcine *ex-vivo* lung perfusion (EVLP) model in Ireland. This model was established in conjunction with the Curley laboratory in the Royal College of Surgeons in Ireland (RSCI).

Methods: Prior to undertaking a porcine explant, two human multi-organ retrievals were observed to gain practical knowledge of the procedure. Following this, a porcine explant with the assistance of the professor of thoracic surgery (PTS) was undertaken to establish protocols. Subsequently, three porcine cadavers were used to gain further experience in carrying out this complex procedure. Following these experiments, the PTS observed me in another explant and deemed me to be proficient in retrieving organs of a transplantable quality. Seven porcine lungs, over six months, were then retrieved to optimise the EVLP model on the LS1 circuit (Xvivo, Lund, Sweden).

Results: We report that it takes two observations and four practice retrievals for a junior trainee to become proficient in harvesting porcine lungs Seven EVLP pilot experiments were all considered successful, however, direct comparisons between these lungs is not possible as they were conducted with different protocols and perfusates due to optimisation.

Conclusions: The overall time span of six months was significantly longer than expected due to unforeseen circumstances such as issues with reagents and the circuit. We propose that other groups establishing a new research model, allow sufficient time for unforeseen events and that a similar protocol could be undertaken by researchers to become proficient in porcine organ retrieval.

Keywords: Trainee; isolated lung perfusion; transplant