In this talk logistics and outcomes of Eye bank prepared DMEK tissue will be presented. 

**Methods** Laboratory studies of two different shipping protocols for DMEK (endothelium trifolded inwards and endothelium rolled outwards) will be presented. Clinical outcomes and complications of patients underwent to DMEK surgery with Eye bank prepared or surgeon prepared tissue will be presented. A Cost analysis of eye bank versus surgeon prepared endothelial grafts will be also part of the presentation. 

**Results** There was no difference in endothelial cell viability between surgeon or eye bank prepared tissue. Surgeon-stripped DMEK grafts in the laboratory investigation showed significantly higher elastic modulus and adhesion force compared to prestripped and preloaded tissues (p<0.0001). In the clinical data, rebubbling rates of 48%, 40% and 15% were observed in preloaded, presplittered and surgeon-striped DMEK grafts, respectively. The cost analysis showed that eye bank prepared tissues had higher surgical expenses compared to those prepared by the surgeon, while the post-operative care expenses were similar between the two groups. 

**Conclusion** The Eye bank prepared tissues are a valid alternative to Surgeon prepared tissue, however need to be highlighted that with current method there is a decreased adhesion forces and elastic modulus in eye bank prepared tissues that may contribute to increased rebubbling rates.

**P45-A154 DMEK IN COMPLICATED EYES: INFLUENCE OF DONOR CHARACTERISTICS, OUTCOMES, AND PROGNOSIS** 
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Descemet membrane endothelial keratoplasty (DMEK) has become the goldstandard in the treatment of Fuchs endothelial corneal dystrophy and early stages of (pseudo)phakic bullous keratopathy due to the safer ‘closed globe’ surgery, the fast and excellent visual recovery and low complication rates. In those cases, DMEK can often be performed in a standardized manner. Given the outstanding clinical outcomes, the spectrum of indications has expanded in the past years: thus, also more complex cases, such as eyes with advanced corneal edema, altered anterior chamber anatomy, failed lamellar grafts, failed penetrating keratoplasty, as well as, phakic, aphakic and vitrectomized eyes are being treated with DMEK. Although DMEK surgery in complicated eyes proved feasible, the procedure is technically more challenging because of the impaired visualization during surgery and the unpredictable graft behaviour. Surgical strategies to accomplish DMEK in complex eyes have been suggested and customization of recipient/donor characteristics (donor age, graft size) may facilitate the surgery. Still, clinical outcomes appear not as good as in standard indications and there is uncertainty concerning the long-term graft survival.