INTRODUCTION
Negative pressure wound therapy (NPWT) is an effective method to control large amounts of exudate whilst promoting debridement. The downside is that some patients find it too painful to be acceptable. Additionally, anesthesia and/or sedation are often required prior to dressing changes. Our patient was admitted to hospital due to trauma that led to a deep, painful, soft tissue injury on the inner leg by the knee. This area became infected and necrotic and needed to be surgically excised. We now had a large, very painful, exuding wound on a mobile patient.

AIM
To find a solution that could cope with copious wound fluid, debride the wound and reduce the excruciating constant pain the patient was experiencing.

METHOD
Surgical debridement was performed under anesthesia in the operating theatre. The patient’s pain level prevented us from using NPWT; she did not find it acceptable to be anesthetized several times a week for dressing changes. Polymeric membrane dressings were chosen due to their ability to continuously cleanse and debride whilst reducing inflammation and pain. The wound became less painful and started to look cleaner at the first dressing change. However, due to the patients mobility combined with the location of the wound, it was difficult to keep the dressings in place and the wound was still painful when handled. We needed to change the dressings every day.

After a week we tried using polymeric membrane dressings as an interface layer between the wound bed and NPWT. This worked out very well as she did not experience any pain during the treatment and we didn’t need to anesthetize her prior to dressing changes since the polymeric membrane dressing prevented the NPWT foam from adhering to the wound surface. We applied the cavity version of the polymeric membrane dressings onto the wound surface, covered them with the regular foam used with NPWT and activated the NPWT system. This way the dressings every day due to the high exudate levels and the patient experienced pain whenever the wound surface was exposed so we decided to try a new dressing combination.

RESULTS
Dressing changes were easy and pain free without any adhesion to the wound surface. New granulation tissue formed rapidly and a split skin-graft was performed 10 days later.

DISCUSSION
NPWT alone would not have been an option for this patient; her pain was too severe. Polymeric membrane dressings alone would also have given us a clean graftable wound surface, but with more frequent dressing changes involved. By combining the two treatments we could save the patient from frequent dressing changes and unnecessary pain while achieving rapid wound progression to closure. The combination also allowed us to perform the dressing changes at the ambulatory clinic instead of in the operating theater. We haven’t estimated financial savings of not having to do anesthetic and not do dressing changes in operating theatre, but it is clear that financial savings are very significant.

BIBLIOGRAPHY

*PolyMem® WIC Cavity Wound dressing
Manufactured by Ferris Mfg Corp, Burr Ridge, IL 60527 USA. This case study was unsponsored.