VR and Postoperative Delirium

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Why?

Delirium is common clinical syndrome

Distressing condition

3 to 53% undergoing major surgery

Upto 83% of critically ill patients
Does it Matter?

- Increased time on ventilator: 9 vs 4 days
- Increased ICU LOS: 8 vs 5 days
- Increased Hospital LOS: 21 vs 11 days
- Higher costs: $22,000 vs $13,000
- Reduced long-term survival: 3 fold reduction
Does it Matter?

![Graph showing estimated scores before and after surgery for different delirium durations.](Pandharipande_et_al_2006_SCCM)
Questions?

Can we build psychological resilience using Virtual Reality and 360° recording of clinical environments?

Is this protective against delirium?
Work to Date

Map out patient pathways

360° recording of rooms, journey, operating area, ICU

Expose patients to the recordings

Obtain feedback
Patient and Public

“I would have liked to have known that the patient next to me would be on so many machines”

“I would have liked to know what was behind the walls in the ICU, a tour would have really helped”

“I didn’t need too much information, just to have seen it would be helpful”
Next Steps

**Partner with Industry**

**Professional 360° recordings**

**Obtain funding**

**Pilot study**

**Bigger study**
PREVENT-ICU-DELIRIUM

"Psychological REsilience through VR Exposure as a Novel Therapy for ICU DELIRIUM."
Future?

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