

The role of subtle to mild cognitive impairment in weighted risk factor analysis for delirium risk prediction.

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Introduction

- Aim is to explore risk for development of postoperative delirium in elderly (>65 years of age) orthopaedic surgery patients, using established risk factors, and subtle- to mild cognitive impairment as an additional/modifying risk factor
- Study will explore the use of different scoring techniques for the SMMSE and Clock Drawing Test in this context (see Fig 1.)
- Attempt to increase delirium risk detection in populations otherwise not recognised as at risk (see Fig 2.)

Fig 1.

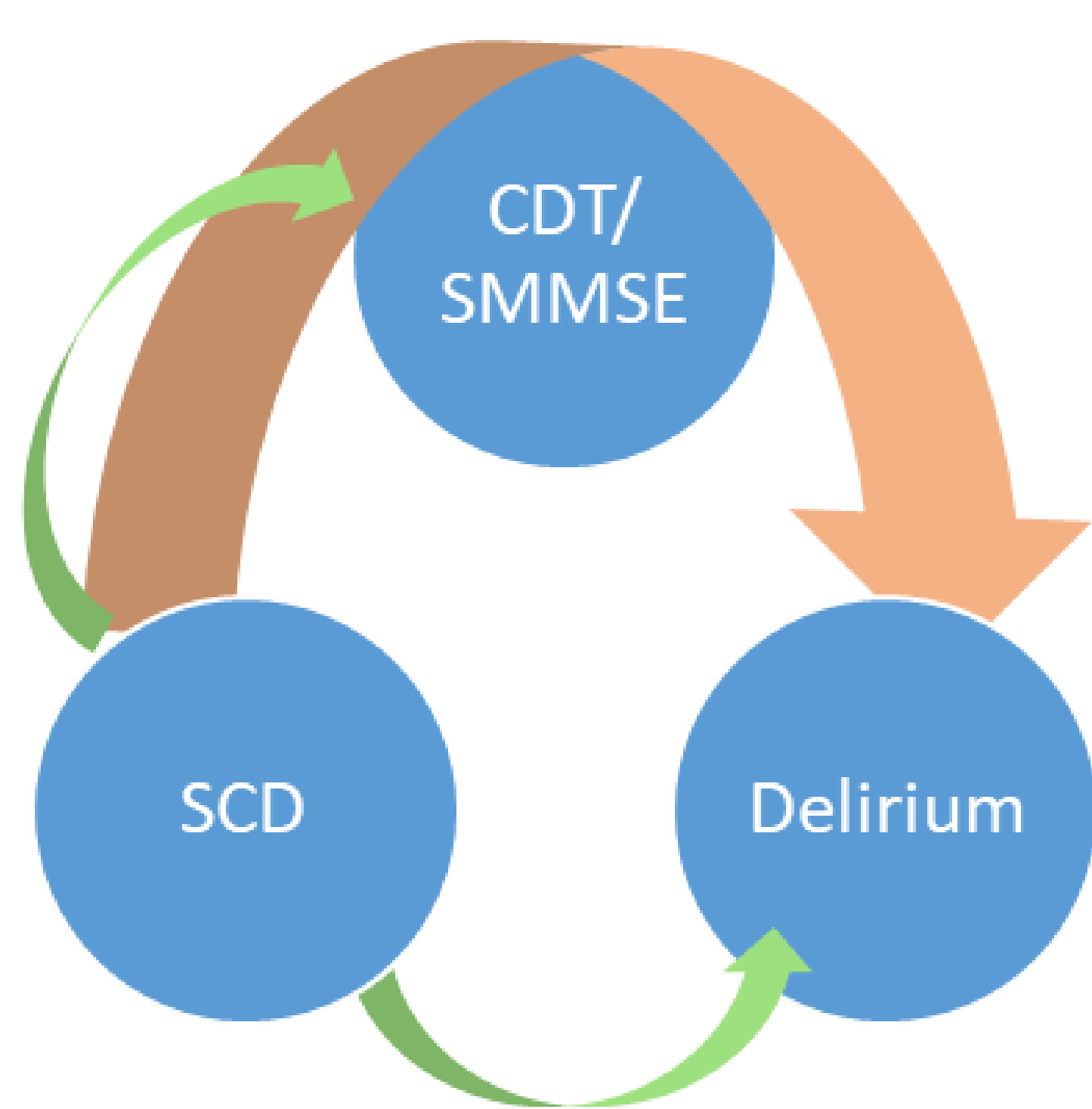
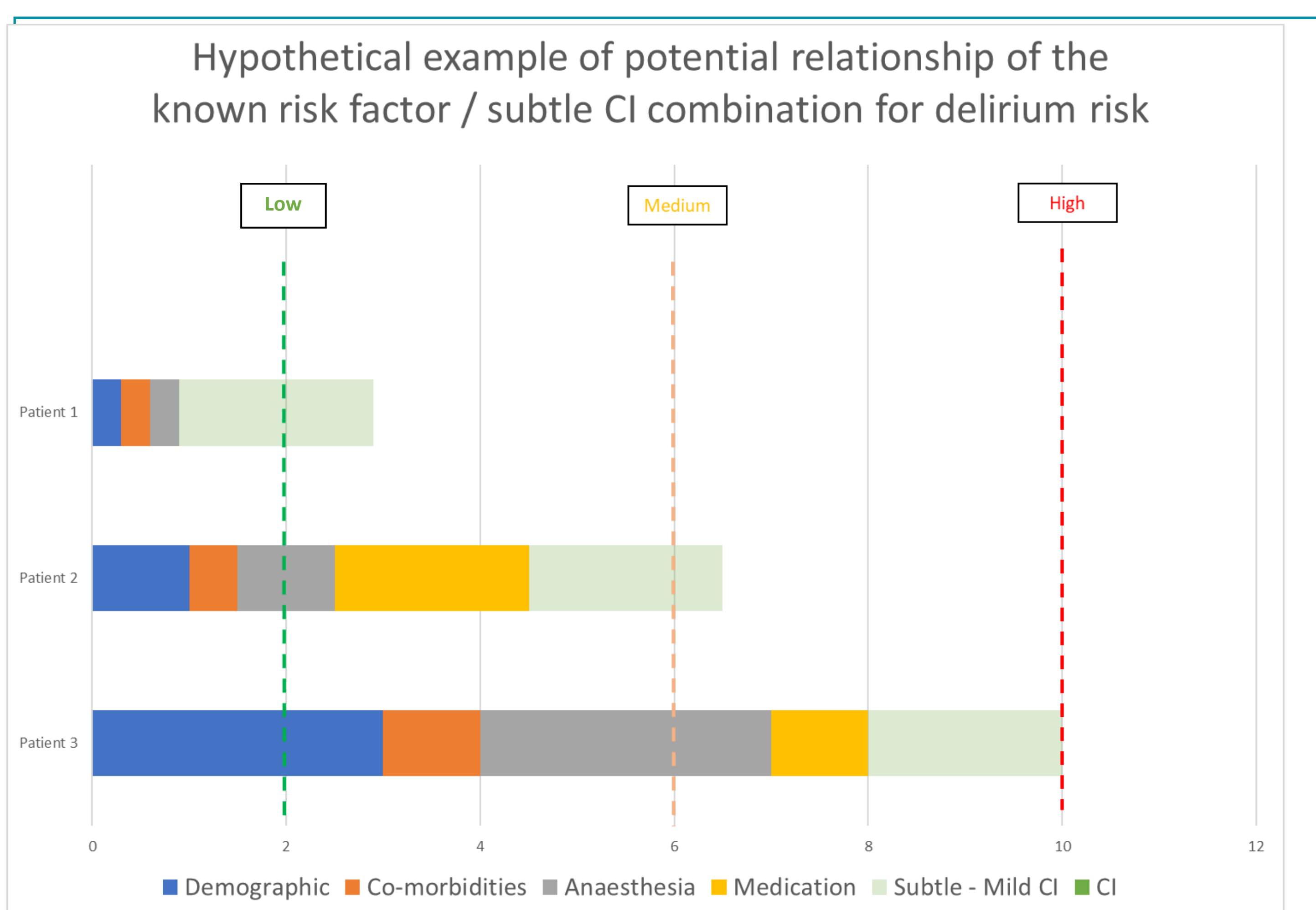


Fig 2.



Methods

- Retrospective patient file review with re-score of SMMSE and CDT
- Patient data on previously established risk factors will be collected
- Relationships of the risk factors and level of cognitive impairment to postsurgical delirium development will be calculated using Binary Logistic Regression Analysis with ROC Curve Analysis.
- Independent variables will be analysed for their inter-relationships, combined and independent relationships to the dependent variables.
- ROC Curve analysis will provide further insight into the effect size of the outcome values.

Potential future impact

- Novel use of routinely collected information, potentially increasing the benefit gained in delirium risk screening procedures already embedded in everyday hospital practice
- Simplification and improvement in accuracy for pre-operative delirium screening, which could improve the prospective allocation of resources to the most vulnerable patient.