

Investigating the relationship between increased stroke therapy during inpatient stay and patient health outcome.

The Sentinel Stroke National Audit Programme: Investigating and Evaluating Stroke Therapy (SSNAPIEST)

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Background

- 45min of therapy/day at least is recommended but few patients receive this for many reasons.
- Therapy amount is a driving factor behind recovery but does simply more therapy better, SSNAPIEST's aims to find out.

Methods

- SSNAP (n=94,905) stroke patients from Jul 2013-15, still in hospital after three days, with key NIHSS severity measures present.
- Therapy (PT, OT and SLT) defined as '**average min of therapy / day of inpatient stay**'.
- Investigated the influence of therapy amount on disability at discharge modified-Rankin Scale (mRS) by fitting a multilevel mixed effects regression model with robust standard errors adjusted for all measured confounders.
- Therapy amount fitted using flexible '**Natural Cubic Splines**' to investigate the relationship between average therapy per day of stay and mRS at discharge

Results

- 93%, 90%, 60% patients received average 15.1, 14.8, 8.7 min PT, OT, and SLT per day of stay
- Plots give Odds Ratio (OR) and 95% C.I. associated with increased mRS at discharge per increased average min therapy per day of stay.

Conclusions/Limitations

- More OT & SLT associated with improved disability at discharged, PT indicates much more complicated relationship

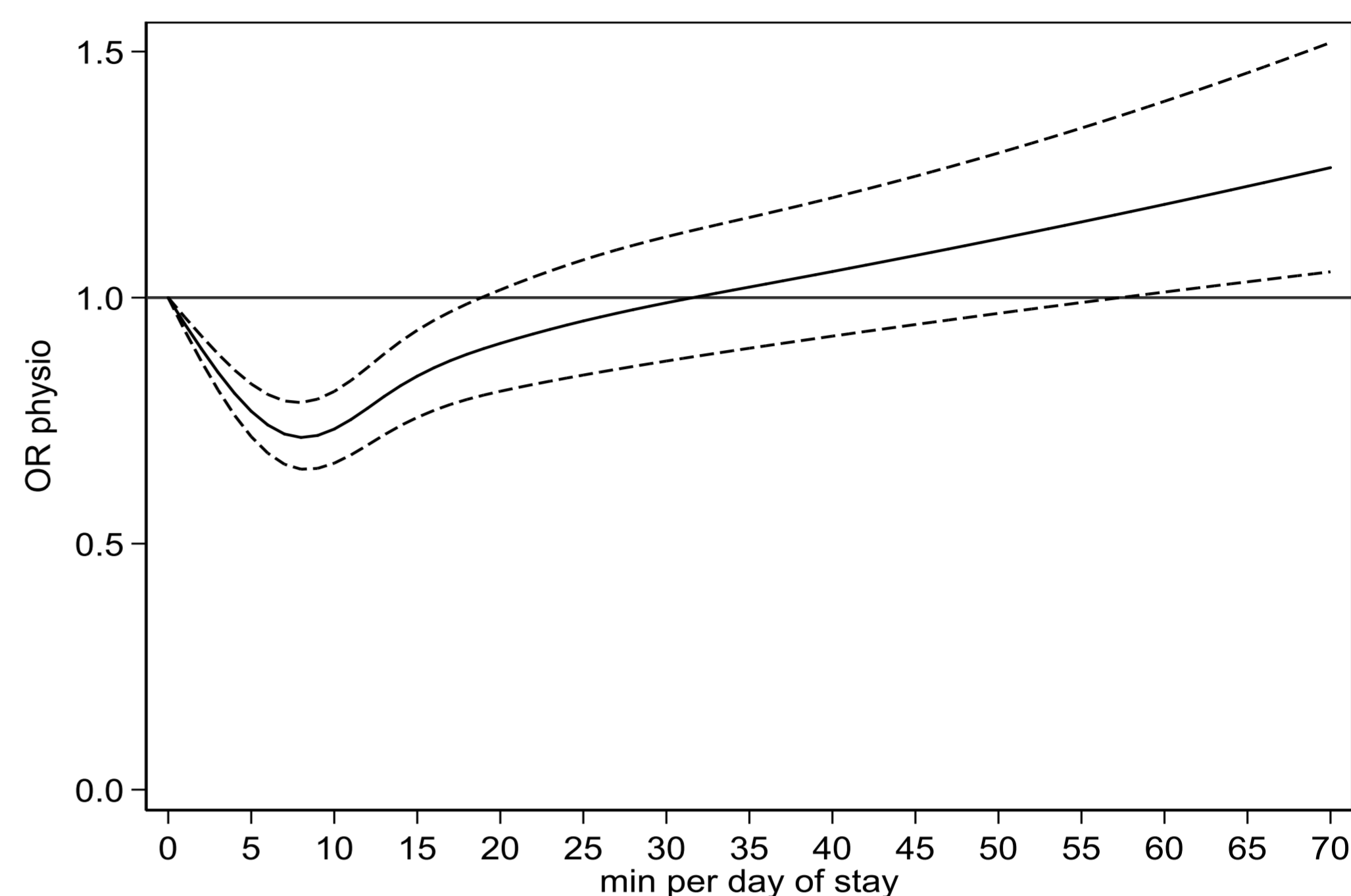
CAUTION – LIMITATIONS!!!

- Observational Study = bias, confounding, misclassification
- mRS very crude measure
- Therapy min per day of stay very crude measure
- Cannot determine nature of therapy, patterns of care (e.g. 10 min per day/two 30 min sessions, one or multiple therapies per day, time since stroke occurred therapy received)
- **Urgently** needs prospective research to confirm/refute

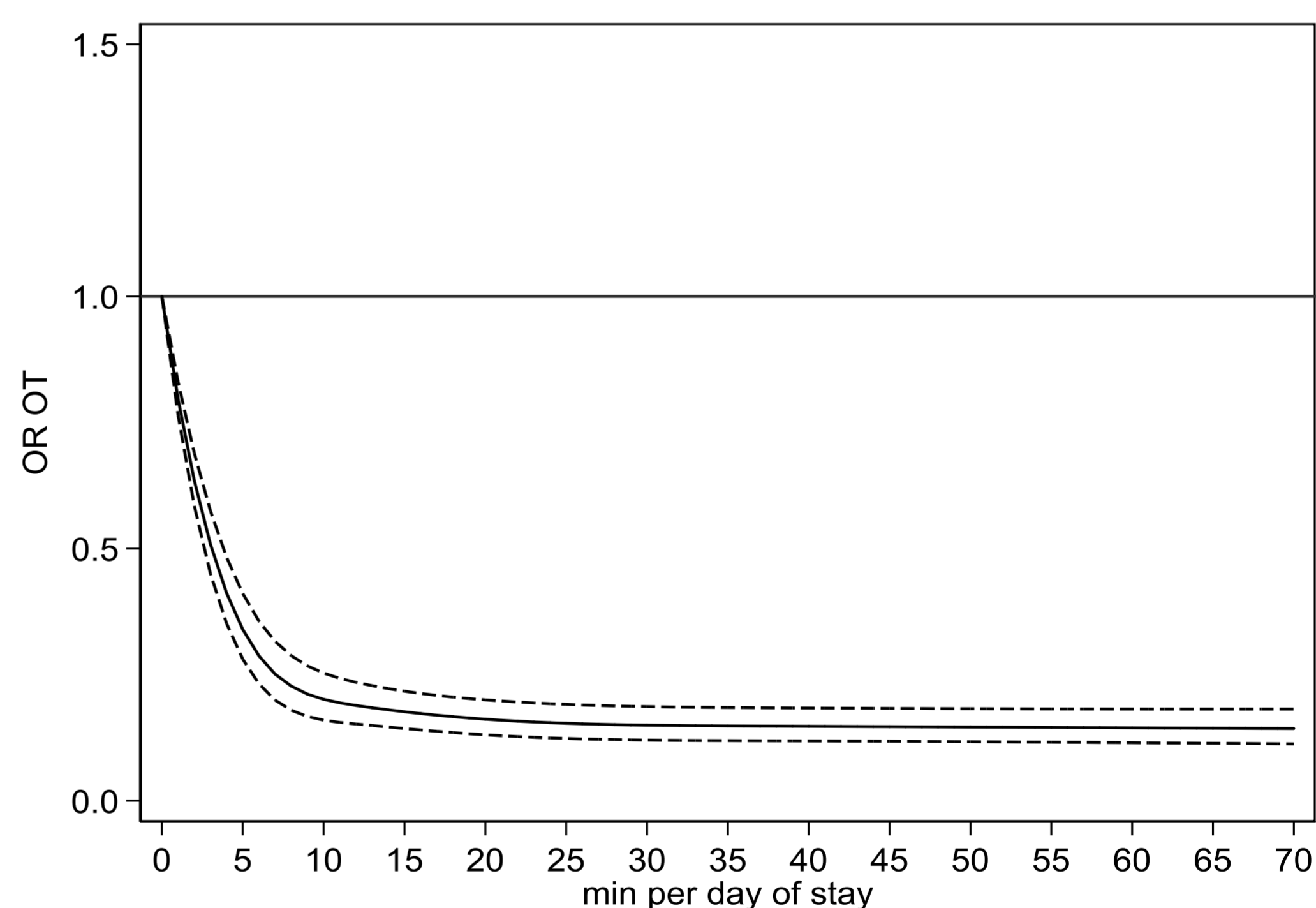
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Results – Physiotherapy



Results – Occupational Therapy



Results – Speech and Language Therapy

