Participant Flow: N/A

Baseline Characteristics: N/A

Outcome Measures:

Primary outcome measures	Adjusted odds ratio*	95% confidence interval
Association between deviations (in hours per patient day) from required nurse staffing (measured by the SNCT) and nurse reports of "enough staff for quality"	0.89	[0.87, 0.92]
Association between deviations from required nurse staffing and nurse reports of "nursing care left undone"	1.14	[1.08, 1.20]
Association between deviations from required nurse staffing and nurse reports of "missed breaks"	1.12	[1.06, 1.18]

 $<sup>\</sup>hbox{*Random intercept models nested at ward and hospital level}\\$ 

Secondary outcome measures	Details	Results
		Average across wards
Reports of "enough staff for quality"	As reported by nurse ward leaders	77.8%
Reports of "nursing care left undone"	o	5.4%
Reports of "missed breaks"	0	5.3%
		Average across hospital Trusts
Percentage understaffed patient shifts	Percentage of patient shifts where wards are understaffed by at least 15% based on 3 policies for using SNCT results	Standard (mean-based) staffing approach - 31%
		High (90 <sup>th</sup> percentile) staffing approach – 19%
		Flexible low (80% of mean) staffing approach – 63%

Percentage overstaffed patient shifts

Percentage of patient shifts where wards are overstaffed by at least 15% based on 3 policies for using SNCT results

Standard (mean-based) staffing approach – 7%

High (90<sup>th</sup> percentile) staffing approach – 15%

Flexible low (80% of mean) staffing approach – 2%

• Adverse Events: N/A.