Intravenous literature: White, R.E., Trbovich, P.L., Easty, A.C., Savage, P., Trip, K. and Hyland, S. (2010) Checking it twice: an evaluation of checklists for detecting medication errors at the bedside using a chemotherapy model. Quality and Safety in Health Care. 19(6), p562-567.

Abstract:

Objective – To determine what components of a checklist contribute to effective detection of medication errors at the bedside.

Design – High-fidelity simulation study of outpatient chemotherapy administration.

Setting – Usability laboratory.

Participants – Nurses from an outpatient chemotherapy unit, who used two different checklists to identify four categories of medication administration errors.

Main outcome measures – Rates of specified types of errors related to medication administration.

Results – As few as 0% and as many as 90% of each type of error were detected. Error detection varied as a function of error type and checklist used. Specific step-by-step instructions were more effective than abstract general reminders in helping nurses to detect errors. Adding a specific instruction to check the patient's identification improved error

detection in this category by 65 percentage points. Matching the sequence of items on the checklist with nurses' workflow had a positive impact on the ease of use and efficiency of the checklist.

Conclusions – Checklists designed with explicit step-by-step instructions are useful for detecting specific errors when a care provider is required to perform a long series of mechanistic tasks under a high cognitive load. Further research is needed to determine how best to assist clinicians in switching between mechanistic tasks and abstract clinical problem solving.

Full text available here.