Quantifying Perishability in Skills: A Critical Review
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**Background**

In all stages of the lifespan motor skills play a critical role and are developed as people perform different fundamental motor skills.¹ Work place skills require special training and knowledge, so as to develop the technical sequencing necessary to perform these skills at high quality and efficiency levels.² Skill perishability can occur for a wide range of different reasons so skills need to be practised and implemented on a daily basis to maintain high execution levels. If a skill cannot be practised for long periods of time, a decline in execution is observed.³

**Aims/Purpose**

The aim of this critical literature review was to identify, critically appraise and synthesise key findings from the current body of literature on perishability of skills within different workplaces.

**Methods**

A two-tiered approach was used to gather studies to inform this review. The process of identifying and selecting studies is demonstrated in the PRISMA diagram (Figure 1) which outlines the overall process. All included studies were critical appraised using a modified Downs and Black checklist.⁴ A Cohen’s Kappa analysis was performed to assess agreement between raters and provide a subsequent consensual critical appraisal score (CAS). Once the final studies were selected, evaluated and graded, key data were extracted.

**Results**

The mean CAS was 65.5% and ranged from 50% to 83.9%. CAS of all included studies are shown in Figure 2. Critical appraisal scores for included articles of this critical review are shown in Table 1.

**Summary & Conclusions**

The evidence suggests that a degree of skill perishability may occur during a given time interval (e.g. airway management skills may decline as early as 6 months) with or without practice. Novices are particularly vulnerable to skill perishability when compared to experts because of their inexperience in a job or situation. Ongoing practice and continued refresher training to combat skill decay and perishability is required with the degree of refresher training dictated by the complexity of the task to be performed.

Some methods of training (e.g. random practice or blocked practice) may be more appropriate at delaying skill decay. Though skill perishability is varied from skill to skill, there is no clear research to identify the exact degree of skill decay when additional skill retention factors and skill complexity are considered. It is clear from this review that refresher training, particularly for novices, should be performed regularly to combat skill perishability.

**References**

10. Tel et al. (2009) Endotracheal intubation after experimental or guided intervention.