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YOU KNOW THE DRILL: INTRAOSSEOUS VASCULAR ACCESS AS AN OPTION DURING CARDIAC ARRESTS IN INPATIENT PSYCHIATRIC UNITS

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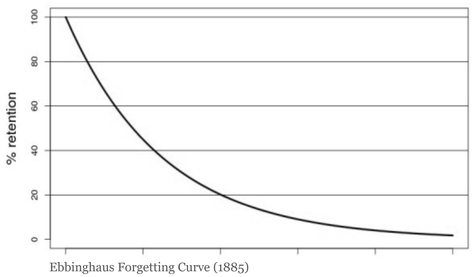
Background

Psychiatric patients have an increased burden of cardiovascular disease for a multitude of reasons. This coupled with the risk associated with acute distress, suicidality and disinhibition; one may expect acute resuscitation to be a relatively common event in psychiatric inpatient units. However, cardiac and respiratory arrests remain rare events in inpatient psychiatric units. However, when they do occur, they require a rapid and efficient response. An important aspect of resuscitation is gaining vascular access quickly, commonly intravenous cannulation. Psychiatrists and some junior doctors may not have performed intravenous cannulation for a number of years as it is not routine in their practice. A GMC literature review regarding 'skills fade' suggested there is an argument for retraining in clinical techniques following 2-3years of non-use.

Evidence shows that both positive short-term (return of spontaneous circulation (ROSC)) and long-term (neurological) outcomes following adrenaline administration in out-of-hospital arrests are time dependant. Intraosseous access shows greater first-attempt success, minimises interruptions and results in more rapid time to vascular access when it is compared to intravenous access. Intraosseous access is also non-inferior to intravenous access when in gaining return of circulation in out-of-hospital arrests.



Ebbinghaus Forgetting Curve (1885)

Method

A survey was conducted at Derbyshire Healthcare NHS Foundation Trust in November 2017 to gain information on intravenous competence and confidence as well as opinion regarding intraosseous access. The number of respondents was 26 (19.8% Response Rate). The result of the survey and the above evidence was presented to the Trust Physical Care Committee.

Results

Last time successfully gained IVA? <6months 23.1%; 6months-1year 3.6%; 1-3years 34.6%; 3-5years 7.7%; 5-10years 15.4%; >10years 15.4%. Competent gaining IVA now? Yes 76.9%; No 23.1%. Confident gaining IVA now? Yes 57.7%; No 42.3%. Experience of using IOA? No 26.9%; Yes (seen) 34.6%; Yes (trained) 46.2%; Yes (performed) 3.9%; Other 19.2

Conclusion & Further Actions

The results show that almost three-quarters of respondents hadn't performed intravenous cannulation in over a year, with over a third not having done so in over 3 years. More respondents felt competent than felt confident in intravenous cannulation which is consistent with evidence that shows that theoretical knowledge of clinical skills decays at a slower rate than practical application. Almost three-quarters had some experiences of intraosseous access, including one respondent who had had intraosseous access performed on them.

The Physical Care Committee supported the introduction of intraosseous access kits. With regards to training, annual intraosseous training and intraosseous training at junior doctor induction (to combat skills fade) will be introduced for the use during cardiac arrest.

Derbyshire Healthcare NHS
NHS Foundation Trust