

Introduction

- Competence to perform medical skills is believed to be related to frequency of practice
- Little is reported about the frequency of performance of specific acts by individual paramedics
- This information is relevant for the evaluation of infrequently performed acts that carry a high risk of harm

Objectives

- To report the frequency and proportion of calls where advanced care paramedics (ACPs) performed any of the following potential high risk delegated medical acts (DMAs):
 - Cardioversion
 - External cardiac pacing
 - Needle thoracostomy
 - Nasotracheal intubation
 - Maintenance of a central venous pressure line⁸

Methods

- A retrospective review was conducted of 13,424 ambulance call reports from April 2011–March 2013
- All calls were completed by ACPs employed in 3 EMS agencies and overseen by a regional base hospital program
- Data were abstracted from a regional electronic database containing 100% of calls in which DMAs were performed

Assumptions:

- Every ACP had an equal chance of performing the procedure
- Every ACP worked an equal number of shifts
- ACPs in their respective EMS agencies covered primarily urban areas

Results

Table 1. Frequency of DMAs by ACPs in a Regional Base Hospital Program

	2011 – 2012	2012 - 2013	Total
ACPs	119	113	232 paramedic years of practice
Calls	6,857	6,567	13,424
Nasotracheal intubation	22	22	44 (0.3%)
External cardiac pacing	9	6	15 (0.1%)
Cardioversion	2	3	5 (0.04%)
Needle thoracostomy	2	2	4 (0.03%)
Central venous line Maintenance	0	1	1 (0.007%)

Table 2. Average number of years for an ACP to perform selected DMAs

Delegated Medical Act	Total
Nasotracheal intubation	once every 5.2 years
External cardiac pacing	once every 21.5 years
Cardioversion	once every 46.4 years
Needle thoracostomy	once every 58 years
Central venous line Maintenance	once every 232 years

Limitations

- No ability to determine how many times a procedure was indicated but not performed
- This study did not evaluate the outcome or the clinical usefulness of the procedure, just the frequency of performance
- Presentation of data makes some questionable assumptions to make a point

Conclusions

- ACPs in the regional program undertook several DMAs on an infrequent basis
- Program resources are used to train, re-train, and certify paramedics to undertake acts they will probably never perform on a patient
- This calls into question the merit of this practice