

## Introduction

- Competence to perform delegated medical acts (DMAs) is believed to be related to frequency of practice
- Frequency of skill performance of DMAs by individual paramedics has rarely been reported in the pre-hospital literature
- Examples of DMAs include administration of ASA, nitroglycerin, salbutamol, glucagon, 50% dextrose, glucose gel, diphenhydramine, dimenhydrinate, epinephrine or use of a semi-automatic defibrillator by PCPs

## Objective

- The objective of this study was to report the frequency of calls where primary care paramedics (PCPs) performed selected DMAs

## Methods

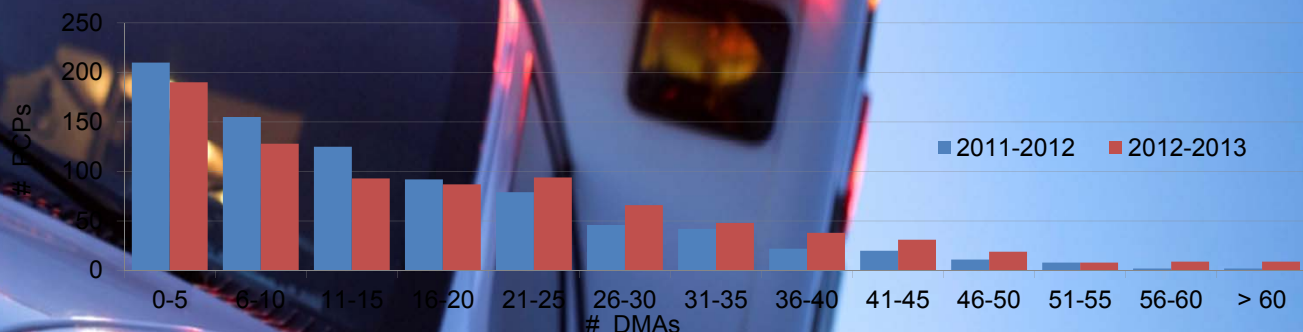
- A retrospective review was conducted of 27,628 ambulance call reports over 2 years (April 2011–March 2013)
- These were completed by PCPs employed in 7 EMS agencies and overseen by a regional base hospital program
- Two EMS agencies covered large urban areas, 1 agency was exclusively rural and 4 agencies were mixed urban and rural
- Data was abstracted from a regional electronic database containing 100% of calls where DMAs were performed
- Data analysis was performed using Microsoft Excel

## Results

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

	2011 – 2012	2012 - 2013
Primary care paramedics (PCPs)	817	822
PCPs who attended ≤ 24 calls per year where a DMA was performed	647 (79.1%)	571 (69.5%)
Median (IQR) DMAs per year	13 (5, 22)	15 (6, 27)
Median (IQR) number of calls per year when ASA was administered	4 (2, 8)	5 (2, 9)
Median (IQR) number of calls per year when nitroglycerin was administered	2 (1, 4)	3 (1, 5)
Median (IQR) number of calls per year when salbutamol was administered	2 (1,5)	3 (1, 5)

\* In 2012- 2013, 117 (14.2%) PCPs gave at least 1 dose of epinephrine (range 0-6), and 299 (36.4%) PCPs gave at least 1 dose of glucagon (range 0-7)



**Figure 1.** Number of PCPs vs number of DMAs performed per year

## Limitations

- Retrospective medical record review dependent upon existing database and correct coding
- Did not split urban and rural calls
- Included all certified PCPs - full time, part-time, supervisors, sick/maternity leaves
- Paramedics work in teams - some call 'experience' gained when paramedic is the driver

## Conclusions

- PCPs in the regional program undertook DMAs infrequently
- If competence to perform skills is related to frequency of use, the low frequency of performance of DMAs by PCPs raises issues of how to ensure and maintain competent performance
- This has implications for ongoing re-certification, continuing education, and skill practice