

Managing Anaphylaxis

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The #1 cause of death in anaphylaxis is the failure to give epi in a timely manner



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Contents lists available at ScienceDirect

Resuscitation

journal homepage: www.elsevier.com/locate/resuscitation



Clinical Paper

Pre-hospital management of anaphylaxis in one Canadian
Urban Centre[☆]



Timothy Chung^{a,e,f}, Lindsay Gaudet^{a,b}, Christine Vandenberghe^a,
Stephanie Couperthwaite^a, Sunil Sookram^a, Kim Liss^c,
Cristina Villa-Roel^{a,b}, Brian H. Rowe^{a,b,d,*}

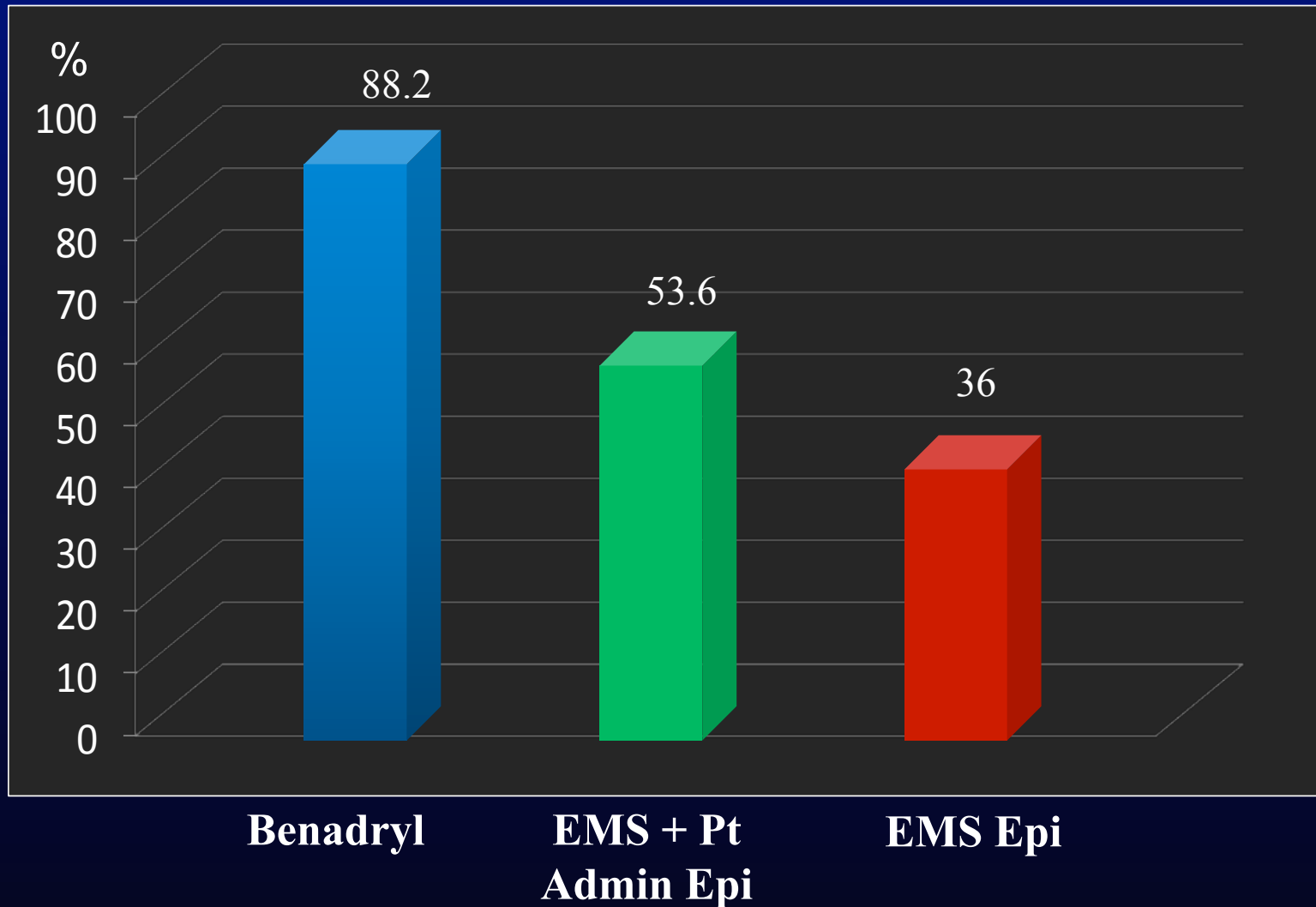
Resuscitation 2014;85:1077-82

How often is epinephrine used for anaphylaxis?

- Edmonton Canada EMS
- 481 allergic reactions
- 136 met criteria for anaphylaxis

Anaphylaxis Therapy

Resuscitation 2014;85:1077-82



PREHOSPITAL ADMINISTRATION OF EPINEPHRINE IN PEDIATRIC ANAPHYLAXIS

Eli Carrillo, MD, H. Gene Hern, MD, Joseph Barger, MD

ABSTRACT

Anaphylaxis in the pediatric population is both serious and potentially lethal. The incidence of allergic and anaphylactic reactions has been increasing and the need for life saving intervention with epinephrine must remain an important part of Emergency Medical Services (EMS) provider training. Our aim was to characterize dosing and timing of epinephrine,

PREHOSPITAL EMERGENCY CARE 2015;Early Online:1-6

INTRODUCTION

Anaphylaxis and allergic reactions are serious and potentially lethal diseases in the pediatric population.

Prehospital Emerg Care 2016;20:239-44

How often is epinephrine given to pediatric patients with true anaphylaxis

- 205 allergic reactions, 98 had anaphylaxis
- Epinephrine given to only 54% (53/98) pts with anaphylaxis

Original Article

Nonsteroidal Anti-Inflammatory Drugs are Major Causes of Drug-Induced Anaphylaxis

Marcelo Vivolo Aun, MD^a, Miguel Blanca, MD, PhD^b, Laila Sabino Garro, MD, PhD^a, Marisa Rosimeire Ribeiro, MD^a, Jorge Kalil, MD, PhD^a, Antonio Abilio Motta, MD, PhD^a, Mariana Castells, MD, PhD^c, and Pedro Giavina-Bianchi, MD, PhD^a *São Paulo, Brazil; Malaga, Spain; and Boston, Mass*

What is already known about this topic? Drugs are responsible for 40% to 60% of anaphylactic reactions treated in the emergency department.

What does this article add to our knowledge? Nonsteroidal anti-inflammatory drugs are major causes of drug-induced anaphylaxis, and they are prescribed to many patients despite a history of a previous reaction.

Allergy Clin Immunol Pract 2014;2:414-20

- Brazilian Study of 806 patients
- Evaluated drug reactions
- 117 Patients (14.5%) had anaphylaxis
- Epinephrine only used in 1/3 of anaphylaxis

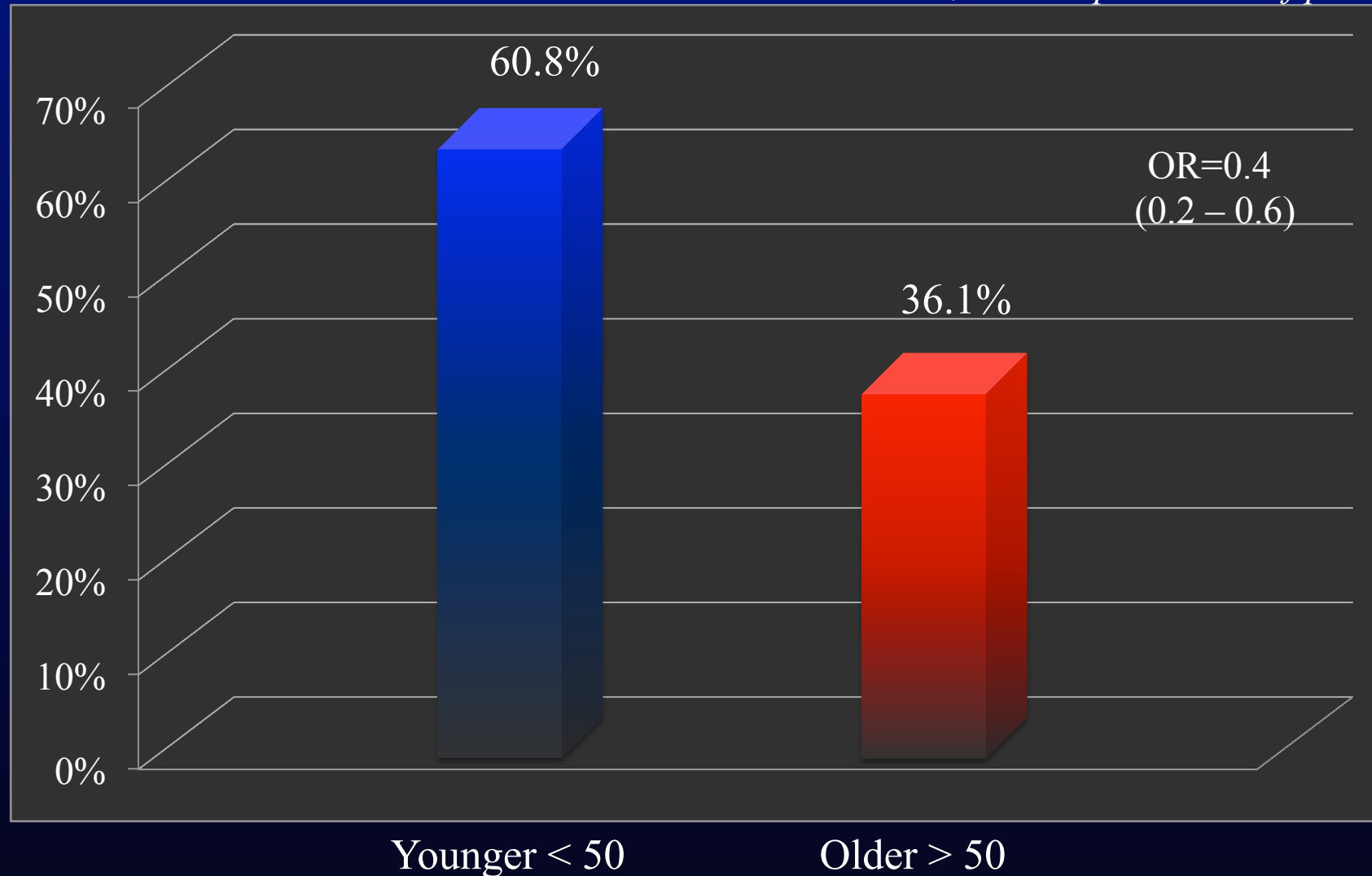
Anaphylaxis

- Study after study shows low epi use
- It is safe and the drug of choice
- Non-use is the #1 cause of death in anaphylaxis
- 0.3 IM in adults; 0.15 IM in children
- 1cc = 1mg

The elderly can safely
receive IM epi

Epi Use in Confirmed Anaphylaxis Older vs Younger

Resus 2017;Jan 6:Epub ahead of print





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Clinical paper

Epinephrine use in older patients with anaphylaxis: Clinical outcomes and cardiovascular complications*

Takahisa Kawano^{a,b,*}, Frank Xavier Scheuermeyer^{a,c}, Robert Stenstrom^{a,c,d,e}, Brian H. Rowe^f, Eric Grafstein^{a,c,e}, Brian Grunau^{a,c,d,e}

Results

Resus 2017;Jan 6:Epub ahead of print

- Equal # of older and younger pts ↓ BP < 90 mm
- Older pts more likely to get IV epi
(5/122 vs 2/370)
- 5 pts had complications
- 4/5 patients were over age 50
- 3 of these 4 got “mini push” epi

Take Homes on Epi in the Elderly

- Very, very safe
- Don't use IV epi routinely in older pts!
- Don't use IV epi routinely in younger pts!
- IV epi is for profound shock only

Epinephrine Anaphylaxis Dosing

0.3 cc 1:1000 IM

*0.1cc/10kg in children (0.01cc/kg).
Up to 0.5 cc in giant people.*



Fast Drip



Slow Drip