

IS PRESSURE DROP COMING DOWN ON YOU?

What to Do When About
Nitroglycerin in the
Prehospital Setting



OR

What to do when the cardiologist
says why did you give nitro to
this STEMI?

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Current Teaching



Nitroglycerin

Contraindications

-  BP < 100mm Hg
-  Pt. Has already taken maximum dose of three doses (1.2mg)

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Temple College EMS Program









What does the EMS literature
say?



Engelberg, et al. Effects of Prehospital Nitroglycerin on Hemodynamics and Chest Pain. PEC 2000

 8255 Patients treated during timeframe

-  1662 treated with NTG (CP, CHF, RD)
-  Mean initial SBP 157.6
-  Mean Decrease in SBP 11.8 (CI 10.7-13.0)
-  Mean Increase in HR 2.7 bpm (CI 0.6-4.9)
-  No deaths
-  Only 4 patients with SBP<90mmHg



So, maybe it is just KC?

What about just IWAMI?



Study 2008 Jan-Sept

■ All Dispatched CP that received NTG and had ECG done

■ Identified only above population with Acute MI by:

■ Zoll Interpretation

■ Blinded Physician over read

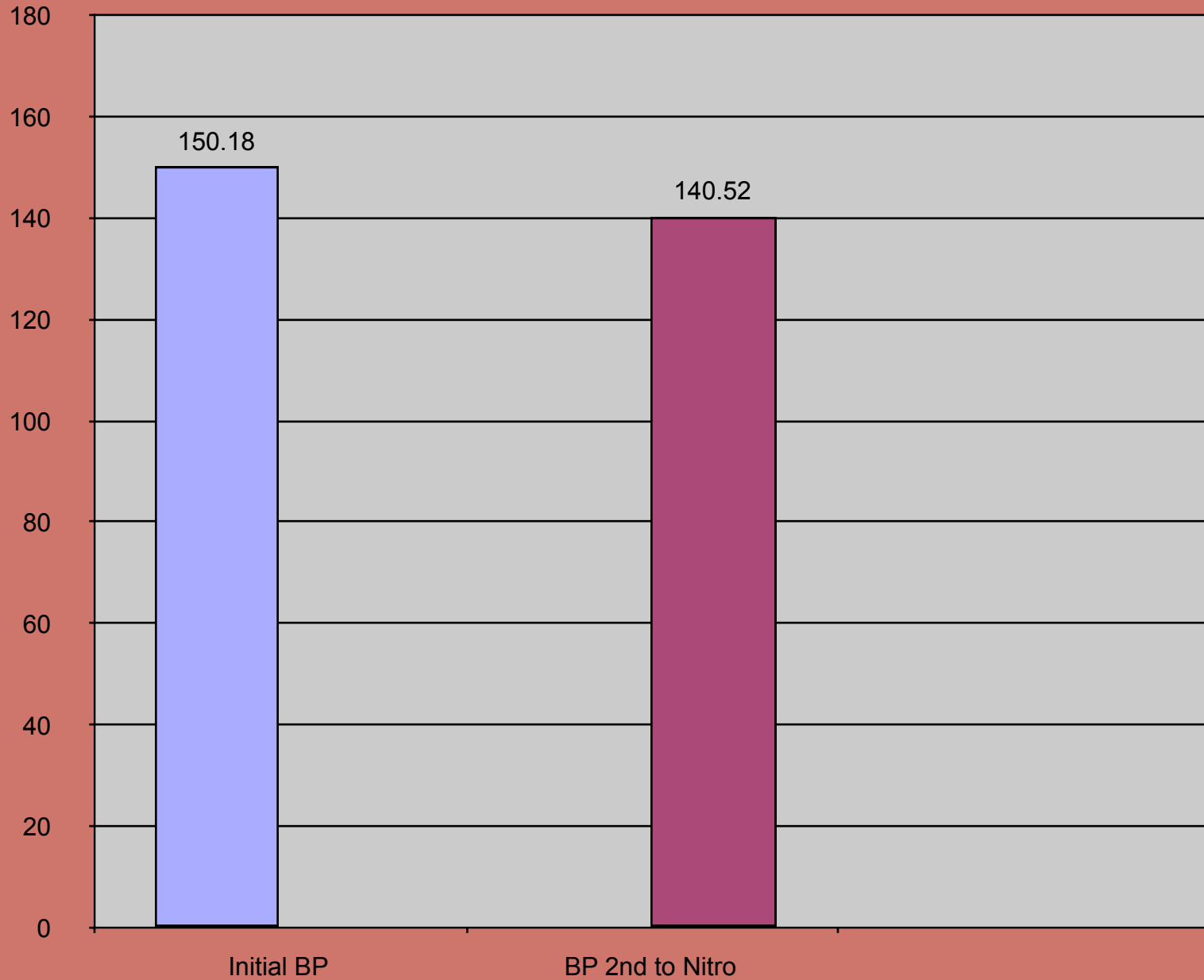
■ 126 Acute MI by ZOLL

■ 58 Acute IW by ZOLL

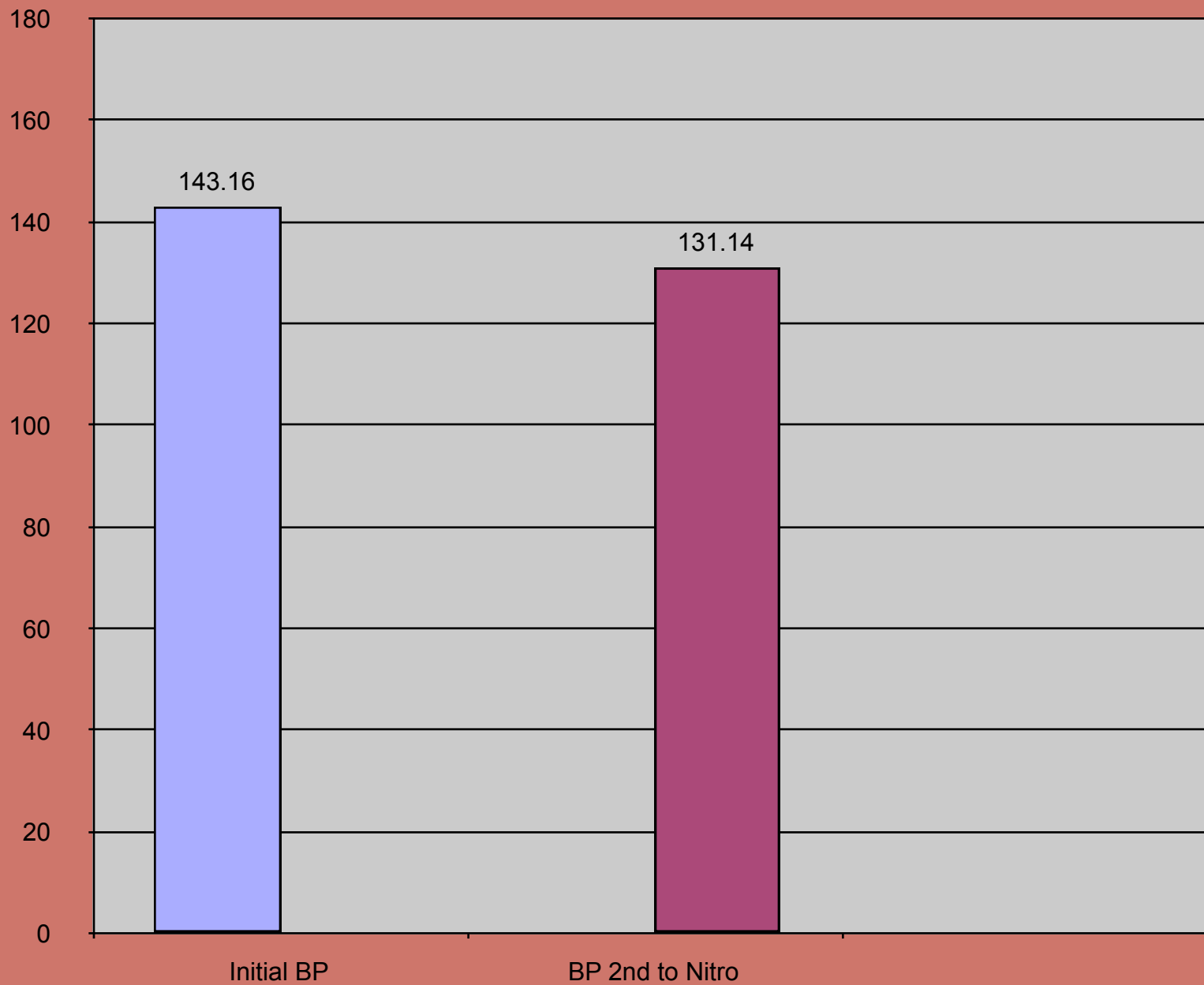
■ 12 Acute IW by MD read



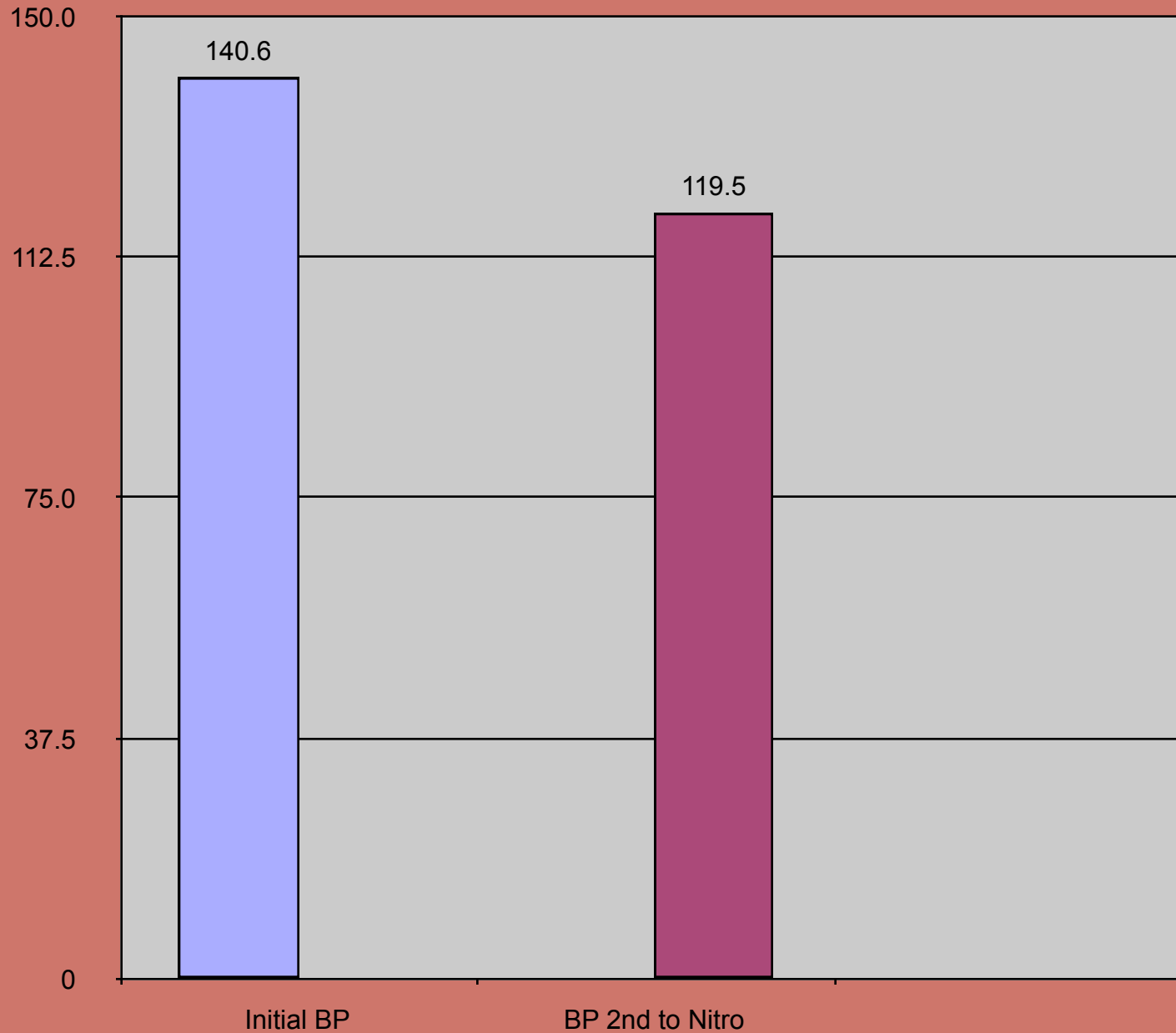
Zoll Interp Acute MI Jan-Sept 2008 126 Charts



Zoll interpreted IWMI Jan-Sept 2008 58 charts



Physician interpreted IWMI Jan-Sept 2008 12 charts



Current Practice?



EAGLES Poll

- Does your system restrict or prohibit NTG use for:
 - Suspected STEMI that might go for PCI?
 - Identified Inferior Wall AMI?
 - Other reasons?
- Do your own personal practices restrict or avoid NTG under the same circumstances?



EAGLES Poll – 26 respondents

- Does your system restrict or prohibit NTG use for:
 - Suspected STEMI that might go for PCI?
 - 26 – NO
 - Cautions most frequently noted:
 - hypotension
 - SBP < 100 or <90 - 9
 - ED medications - 7
 - IV first? - 1

EAGLES Poll

- 26 respondents

■ Does your system restrict or prohibit NTG use for:

■ Identified Inferior Wall AMI?

■ YES – 20

■ NO – 6

■ Hypotension

■ SBP < 100 or ED meds

■ V4R and IV

■ BP <110/70 – Extreme Caution



EAGLES Poll

■ Does your system restrict or prohibit NTG use for:

■ Other reasons?

■ YES – 6

■ NO - 2

■ NA – 18

■ SBP <100 or ED meds in last 72hrs
consult OLMC



EAGLES Poll

- Do your own personal practices restrict or avoid NTG under the same circumstances?
- Similar to EMS
- Use Best Judgment
- “From what part of the galaxy did these queries come from?”



Conclusions

- NTG still advocated for ACS management
- Consider IW MI – V4R?
- IV Fluids
- EAGLES Research Consortium question?

