

Stop the Bleed on the Frontline

“Measuring Immediate Responder Knowledge”



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Background/ Purpose

With an ACS goal of zero preventable deaths, assess knowledge integration from standardized Stop the Bleed (STB) course among law enforcement as immediate responders.

Study Aim/ Methods

1. Determine participant knowledge of STB concepts pre/post didactic presentation to assess concept assimilation.
2. Determine if the participant is able to perform correct tourniquet application and application of direct pressure/ wound packing through return demonstration.

Study Design

1. Survey format
2. Information from STB course material used to develop questionnaire
3. 10 item questionnaire with T/F and multiple choice
4. Administered prior to the didactic presentation and following competency demonstration

Setting

1. Kansas City Police Department (KCPD)
2. KCPD Academy locations
3. Single hospital project
4. Decentralized law enforcement locations

Sample

- Inclusion: All KCPD frontline police officers and academy recruits
- Exclusion: None
- Required: 100% completion of both pre/post test assessment. N = 559

Survey Questionnaire

1. What are the ABC's of Bleeding?
2. Only trained medical professionals should take care of the bleeding trauma patient. (T/F)
3. What is the proper application of a tourniquet?
4. What does life threatening bleeding include?
5. Compression is needed to treat which type of wound?
6. When applying direct pressure to a bleeding wound you should frequently check to see if the bleeding has slowed or stopped. (T/F)
7. What are the correct steps to place a tourniquet?
8. What is the best way to treat a life threatening wound if only a first aid kit is available and there is no tourniquet?
9. When can you stop applying pressure to a life threatening wound?
10. Uncontrolled bleeding is the number 1 cause of preventable death from trauma. (T/F)



Results

- McNemar and Chi squared tests were conducted to examine the difference pre and post answers for each outcome variable.
- Out of ten response variables, nine showed significant increase from pre to post scores with p values < 0.05
 - 1. p value = .00
 - 2. p value = .00
 - 3. p value = .00
 - 4. p value = .041
 - 5. p value = .200
 - 6. p value = .00
 - 7. p value = .011
 - 8. p value = .00
 - 9. p value = .00
 - 10. p value = .039

Conclusions

Programmatic

- Investment into STB equipment is crucial to trauma outreach
- Executive (CEO/CMO/VP) support is vital for sustainability.
- Support of the Trauma Medical Director and Trauma physicians is critical to success.
- Heightened public recognition for TMC Trauma Services and trauma physicians as direct result of community collaboration and education.

Education

- While a standardized course provides consistent information; demonstration and repetition/ practice reinforces competency
- Education with tools provided is more effective than education alone.

Patient Outcomes

- Increased scene probability of survival
- Increased in-hospital probability of survival
- Potential to decrease initial blood utilization/ resuscitation

References

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