Blood Administration Team "BAT"

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Rapid Response Systems: Team Systems for Safety

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UPMC HEALTH SYSTEM 1

Overview

- Rapid response team to administer blood safely
- Came from a patient safety event in one of our critical care units.
- Root cause analysis showed
  - Lack of manpower during bleeding situations
  - Lack of organization of the bleeding situation
  - Lack of knowledge about bleeding situations

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Why do we need a BAT?

- To ensure that patients receive the correct blood product in an efficient manner.
- Identified teams provide better care in an organized fashion.

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Criteria for calling the BAT

- Uncontrolled bleeding or
- The need for uncrossmatched blood in a bleeding situation or
- The need for greater than 2 units of blood to be infused at one time or
- The rapid infuser is being used or is needed

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Who is the BAT

UPMC HEALTH SYSTEM 5

Who is the BAT

- A team made up of:
  - An ICU nurse responder
  - A nurse aid responder
  - A MD
  - Blood Bank personnel or MD
- Zone Response (8 zones)

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Responder's Roles

- RN
  - Checks blood according to policy and documents accordingly
  - Maintain contact with blood bank
  - Maintain contact with the blood bank MD
  - Directs staff and responding nurse aid

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Responder's Role

- Nurse aid
  - Obtain blood from blood bank
  - Obtain blood from the uncrossmatched refrigerators
  - Listens for direction from the responding RN

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Responder's Role

- MD's (occurs naturally through primary team)
  - Respond to assist with managing the bleeding patient
  - Communicates with the blood bank physician the need for more blood or blood products
- Blood bank MD
  - Communicates with RN or MD on the scene

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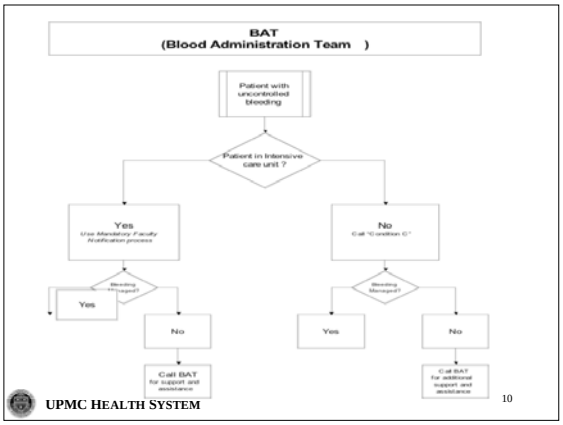

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BAT Process

1. Recognize bleeding.
2. Recognize "BAT" situation
3. Call to the operator to initiate the BAT
4. The BAT is called for by an overhead page by the operator. (BAT team to floor, wing and room number)
5. Responder to the bedside
6. Responders assist with blood product management (do not take over management)

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Our Process (continued)

- The operator pages key selected individuals in the institution
  - Reasons:
    - Notification of blood bank
    - Auditing of the event
    - Notification to the nurse aid

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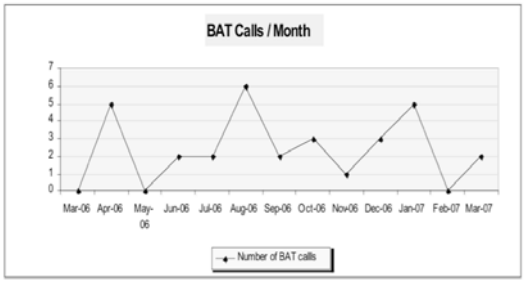
Frequency of Calls



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Quality Improvement Monitors

- Each BAT call is audited for:

Audit Item	Outcome	Action
Personnel attendance	> 90% compliance in personnel attendance	Reinforcement to personnel
Blood administration errors	None present at the 35 BAT calls to date	Continue education related to BAT

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More QI

Audited Item	Outcomes	Action
Arrival time of personnel	90% with in 10 minutes; other 10% with in 15 minutes	Noted PCT delays d/t being in another building →Pager; signage
Call from blood bank personnel	100% compliance	Pager noted

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More QI

Audited Item	Outcomes	Action
Blood delivery	Delays noted in first 8 calls	Uncrossmatched blood refrigerators added;
Uncrossmatched blood used with proper procedure	3 incidents of noncompliance	Refrigerator security and reinforced procedures

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Our Success

- Evolution to areas outside the critical care units; Whole hospital service
- No patient safety events related to blood administration errors in emergency (Oct. 2005 to present)
- Situations since the inception of the BAT
- Efficiency of delivery of uncrossmatched blood and effectiveness of the BAT

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Future Plans…

- Simulation of bleeding incidents and the care provided; Bleeding crisis training
- Education on the use of rapid infusing
  - Unfamiliarity
- Analysis of getting patient to the OR promptly

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Summary

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19