

Blood Transfusion Education in Medical-Surgical Acute Care Hospitals in the U.S.

Rebecca K. Aulbach, PhD, RN-BC, ACNS-BC, CPHQ

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Disclosure Information

- **Rebecca K. Aulbach, PhD, RN-BC, ACNS-BC, CPHQ**
 - ◆ Employer: Texas Woman's University, Houston, Texas
 - ◆ Conflict of interest: I have no financial relationships to disclose. No sponsorship or commercial support was received. I will not discuss off label and/or investigational use in my presentation.

- **Learner Objectives:**
 - ◆ Describe the safety gap in blood transfusions.
 - ◆ Discuss research findings of hospital-based blood transfusion education of medical-surgical acute care nurses as described by a nationwide survey of randomly selected hospitals across the U.S.

Nurses & Transfusion

- **Blood Transfusion - Lifesaving**

U.S. - transfuse >30 million units/year



- **Nurse's Responsibility (point-of-care)**

- ◆ **Blood administration**
- ◆ **Clinical assessment of the patient**
- ◆ **Prompt recognition of adverse transfusion events**
- ◆ **Immediate intervention**

Safety Gap in Blood Transfusions

■ Blood transfusions

- ❖ Living tissue transplant
- ❖ Frequent and risky procedure



■ Transfusion safety focus

- ❖ Research to identify and prevent knowledge and surveillance gaps

■ Nurses - point-of-care - RISKS

- ◆ Blood specimen collection: “wrong blood in tube”
- ◆ Blood pretransfusion verification: “wrong blood in patient”
- ◆ Blood administration



Over Arching Purpose

- To comprehensively describe the nurses' practices with blood transfusion and establish a foundation for future research.
- Population - Medical-Surgical Acute Care Hospitals of all sizes and all geographic locals in the U.S.
- This presentation describes the education aspect of nurses and blood transfusions.



Research Questions on Education

1. What **education content and methods of communication** are used in the hospital-based preparation of medical-surgical nurses and nursing staff related to the administration of blood products?
2. What **internal and external sources of information influence** the communication and diffusion of blood transfusion practices of nurses in medical-surgical units in U.S. hospitals?
3. How are **patients and their families instructed** about symptoms to report during a blood transfusion in medical-surgical patient care units in U.S. hospitals?

Instrument

- **Nurses' Practices with Blood Transfusions: Medical-Surgical Acute Care**
 - ◆ **72 item web-based survey**
 - ◆ **Validity - content**
 - Item content validity (I-CVI) 0.8 to 1
 - Scale content validity (S-CVI/Ave) **0.962**
 - ◆ **Reliability - test-retest**
 - Cohen's Kappa **0.793**
 - Raw Agreement **0.846**

Data Collection

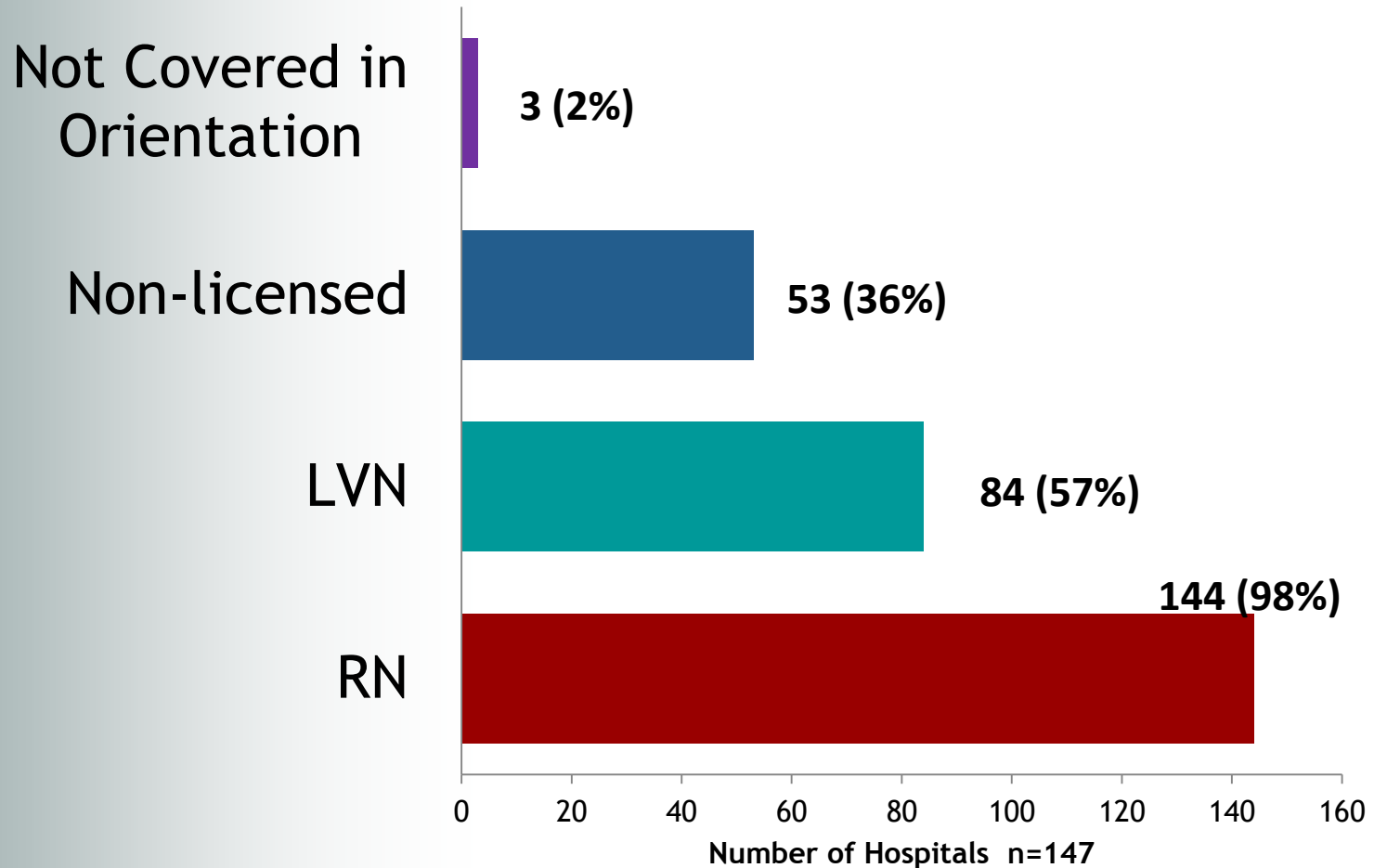
- CNO assigned nurse to complete survey
- Recruitment letter included
 - ❖ instructions for access to PsychData
 - ❖ Instructions for access to a copy of the survey via the TWU MyWeb home page
 - ❖ Education grant for \$200, one for each size hospital
- ❖ 148 hospital completed the survey (18.3% response rate)



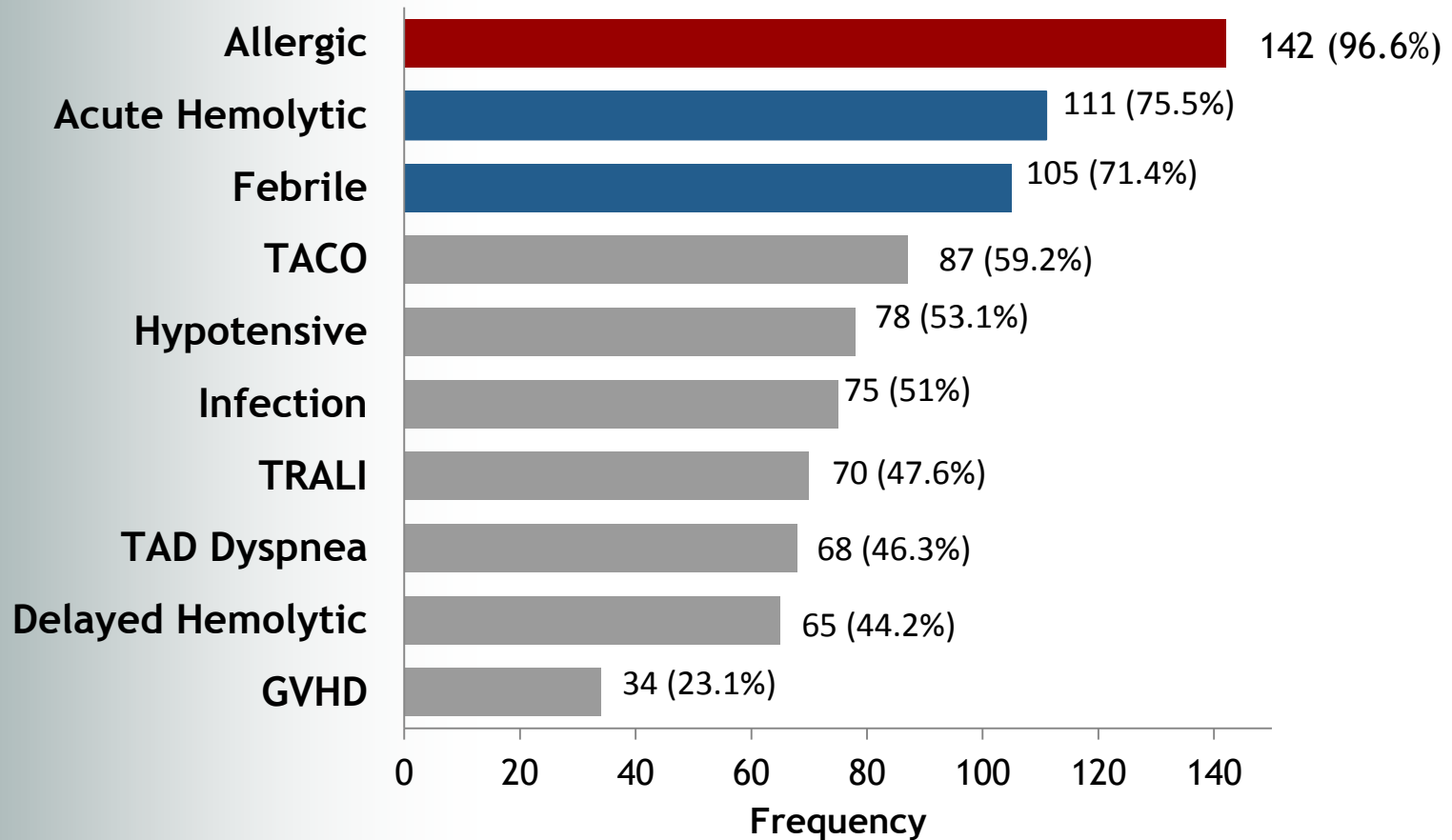
Hospital Demographics

- Excellent representation of hospitals across the country in a demographic characteristics
 - ❖ Community population
 - ❖ Hospital type
 - ❖ Teaching or non-teaching
 - ❖ Magnet
 - ❖ Inpatient bed size
- 61% from Midwest and Southern states

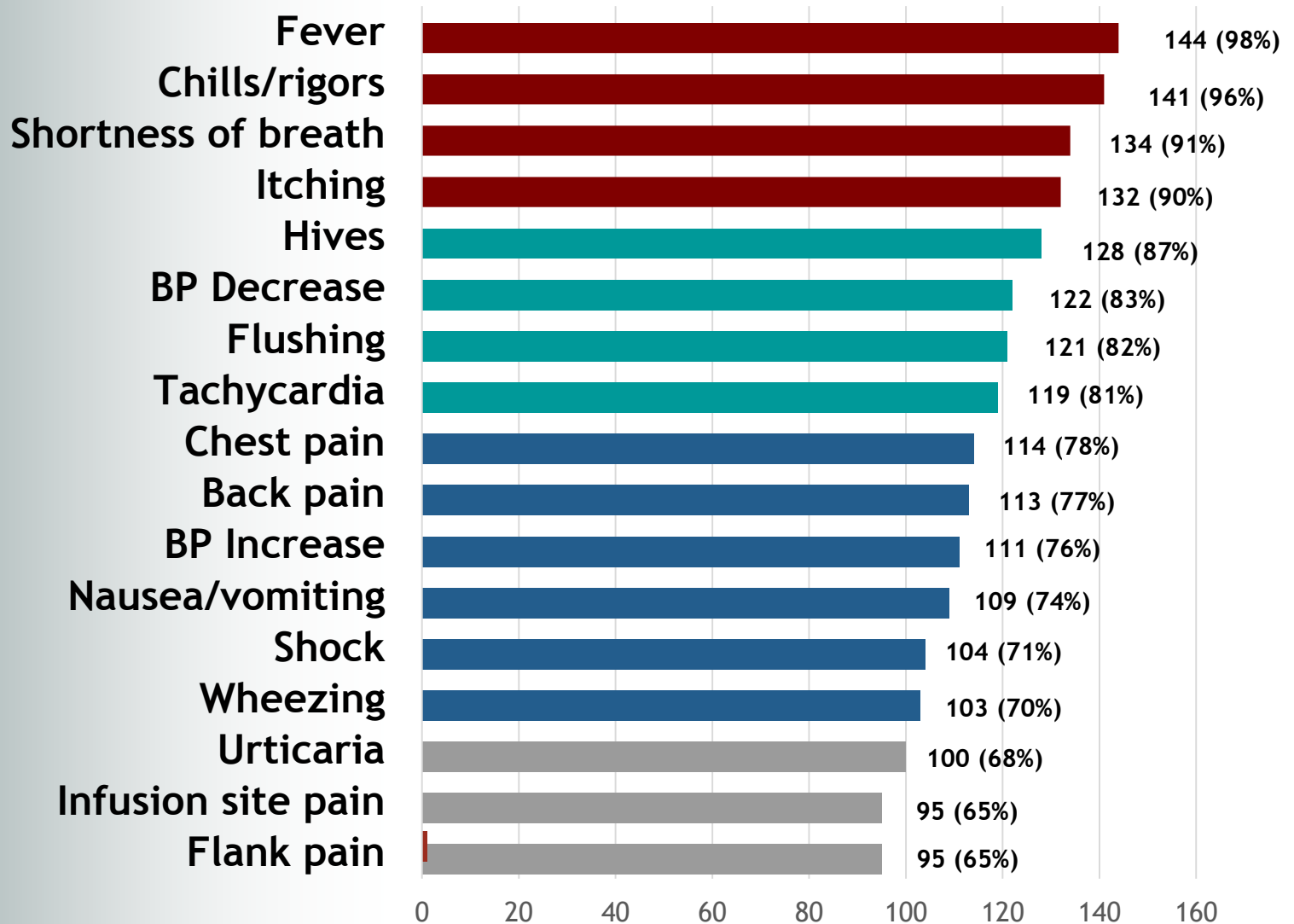
Blood Transfusion Education Included in Orientation



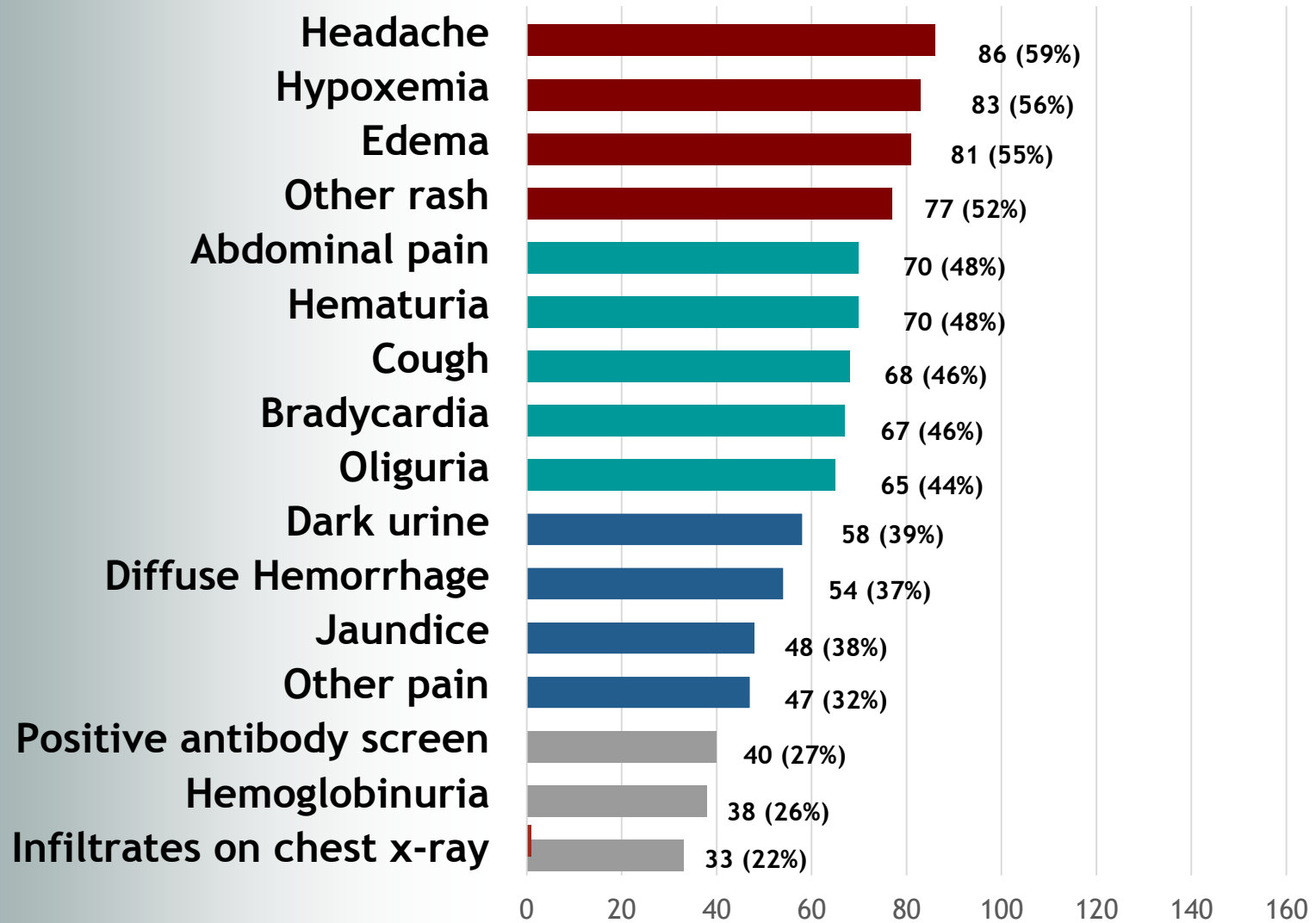
Types of Transfusion Reactions included in RN Education



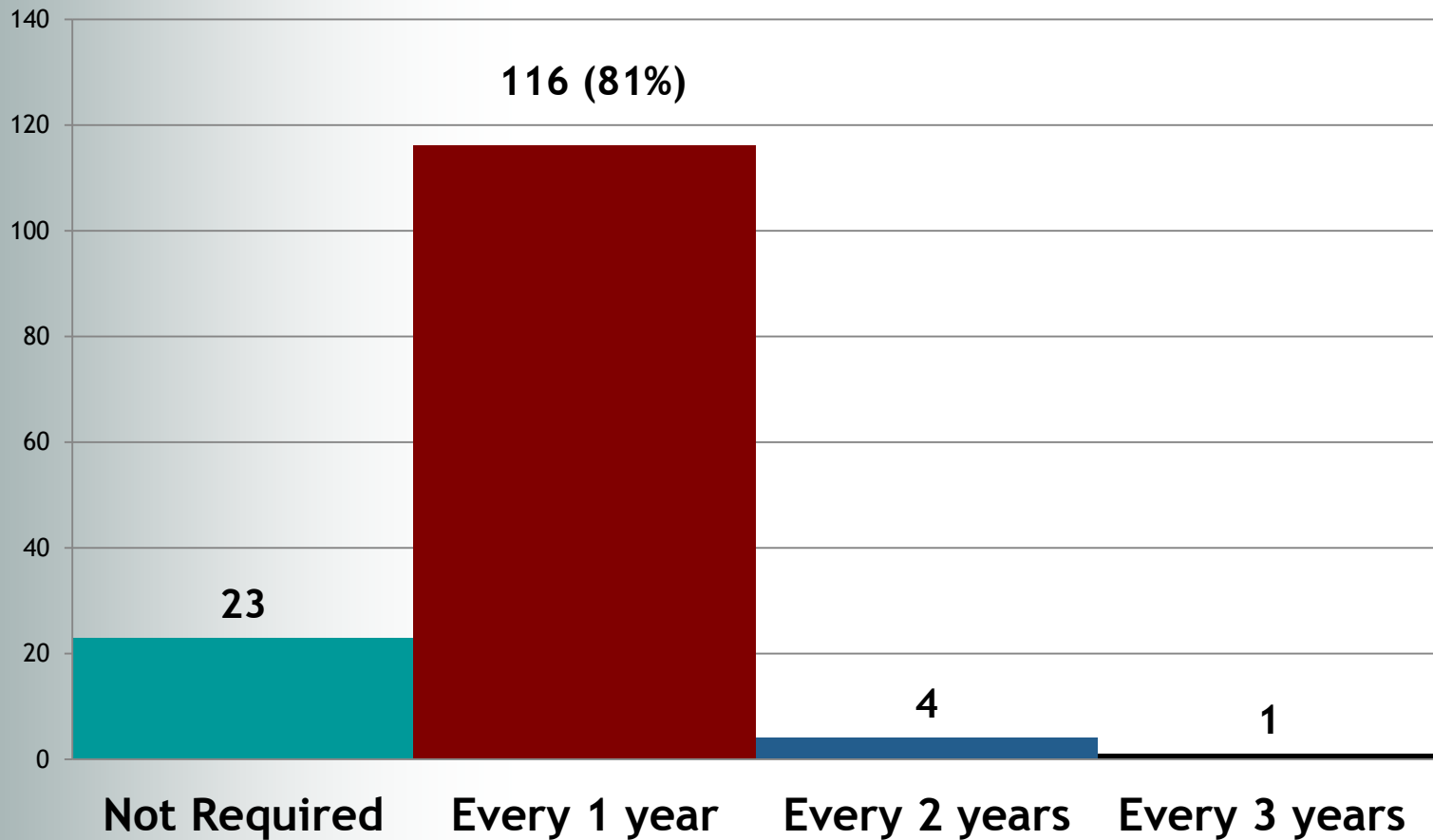
RN Education - Transfusion Reaction Symptoms



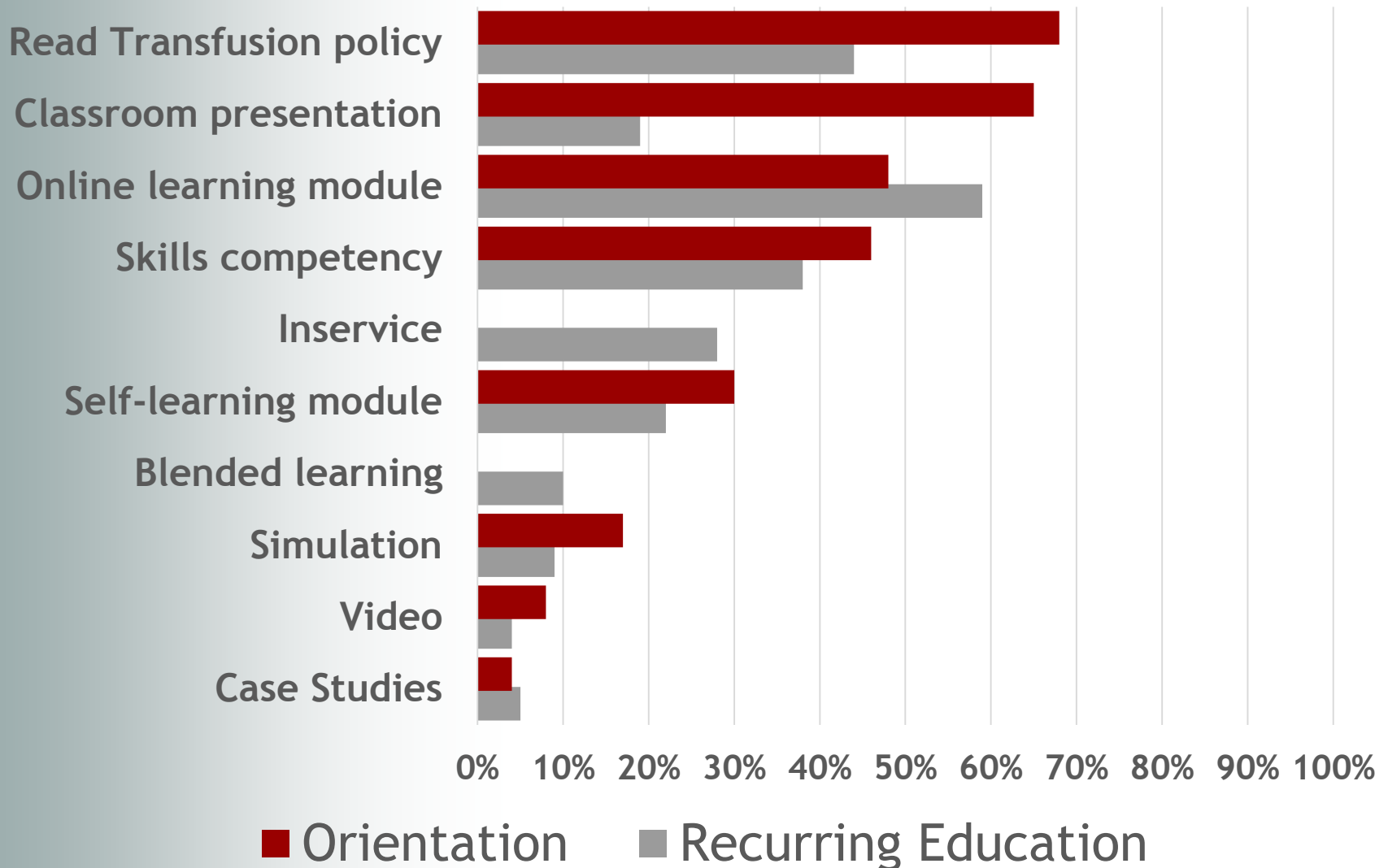
RN Education - Transfusion Reaction Symptoms



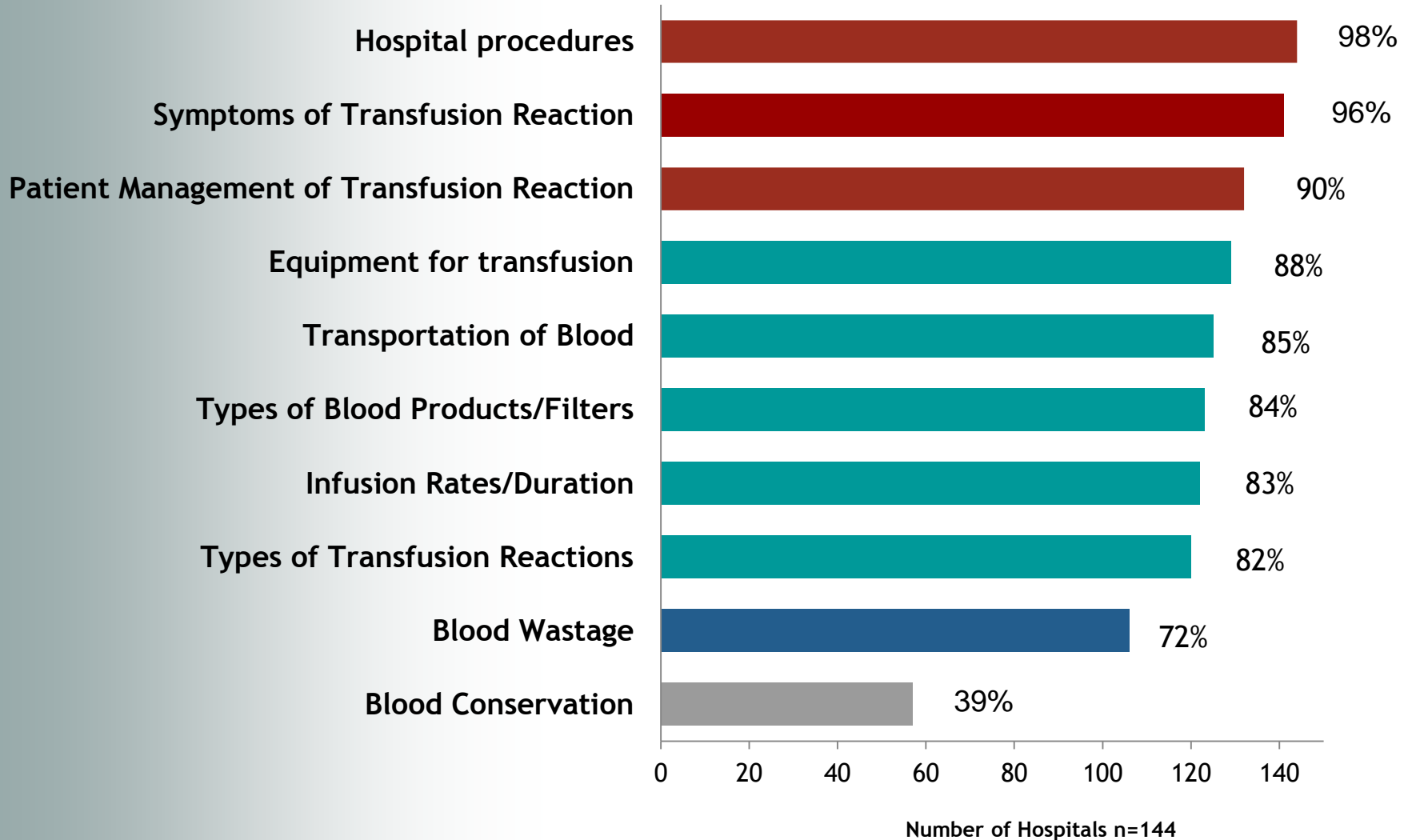
Occurrence of Recurring Blood Transfusion Education for RNs



Methods of Instruction on Blood Transfusions



RN Education Content - Hospital Orientation





Hospital Education on Blood Transfusions

- E-Learning common learning mode for annual education - 56% - **Adoption progressing**
- Non-licensed nursing
 - ❖ Delegated transfusion vital signs - 72% - **Widely adopted but not recognized**
 - ❖ Receive education on blood transfusions - 36%

Influential Information Sources

- **Nurses transfusion practices are almost entirely determined by influences within the hospital**
- **Internal**
 - ❖ **Transfusion policy - 93%**
 - ❖ **Transfusion service staff - 61%**
 - ❖ **Staff nurse peer - 57%**
- **External**
 - ❖ **Journal articles - 48%**
- **Implication** - nurses need to be actively involved in updates in the transfusion policy



Patient Education

- **The patient is dependent on verbal instructions from the nurse**
- **Pamphlets or information sheets are given to the patient to support patient education all or most of the time - 38%**



Conclusions

Nursing Staff Education

1. RNs - annual education on blood transfusions. When educated, LVNs receive similar education.
2. Non-licensed staff are inadequately prepared to assist in the care of patients with blood transfusions.

Patient Education

1. A substantial gap in patient education in that the instructions are primarily verbal.



Conclusions

Sources of Influence

1. Hospital policy is primary influence
2. Human resources are important if immediately available.
3. Nurses inform and influence others when there is a nurse representative on the hospital's medical transfusion committee.

Thank you

