

# GAMUT Update

GAMUT Database

Sunday, Sept 7, 2014

```
## Warning: replacing previous import by 'magrittr::%' when  
## Warning: replacing previous import by 'plyr::arrange' when lo  
## Warning: replacing previous import by 'plyr::desc' when lo  
## Warning: replacing previous import by 'plyr::failwith' whe  
## Warning: replacing previous import by 'plyr::id' when load  
## Warning: replacing previous import by 'plyr::mutate' when  
## Warning: replacing previous import by 'plyr::summarise' wh  
## Warning: replacing previous import by 'plyr::summarize' wh
```

# Participation

## GAMUT Overview

## GAMUT Database

## Advanced Airway Management

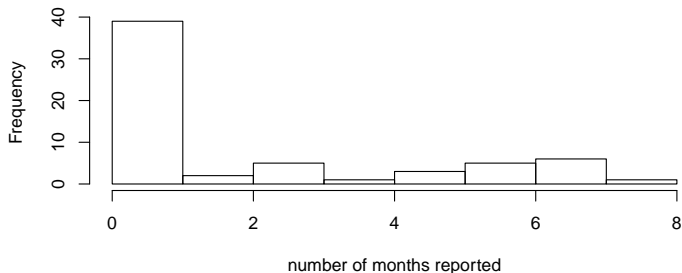
## Intubation

## General Metrics

## Focused Populations

## Rare Events

62 total programs enrolled



# Patients

## 14297 Total Patients

- ▶ 3738 Neonatal
- ▶ 8143 Pediatric
- ▶ 2409 Adult

Data as of : Sun Sep 07 17:05:22 2014

GAMUT Update

GAMUT Database

Participation

Advanced Airway  
Management

Intubation

General Metrics

Focused  
Populations

Rare Events

# Advanced Airway Management

# Mechanical Ventilation

GAMUT Update

GAMUT Database

Participation

Advanced Airway  
Management

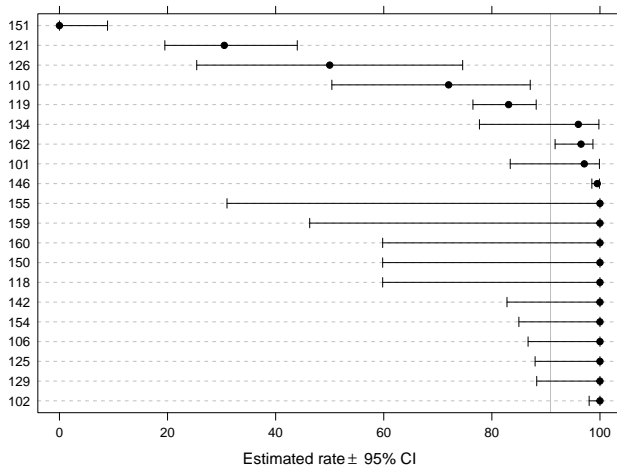
Intubation

General Metrics

Focused  
Populations

Rare Events

**Percent of patient transport contacts with  
an advanced airway supported by a mechanical ventilator**  
Overall: 90.9 % (1420/1563)



# Waveform Capnography

GAMUT Update

GAMUT Database

Participation

Advanced Airway  
Management

Intubation

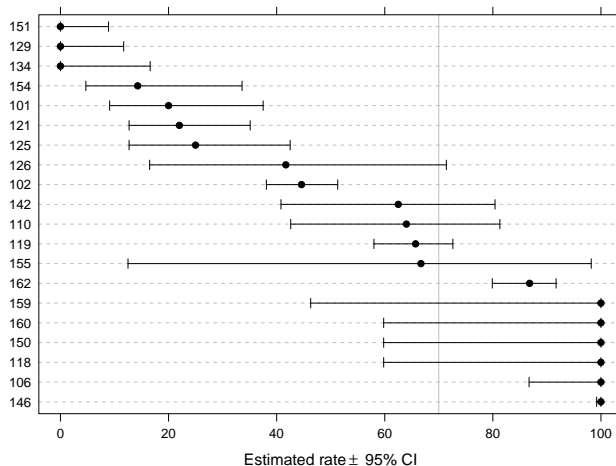
General Metrics

Focused  
Populations

Rare Events

**Percent of patient transport contacts with advanced airways  
in whom continuous waveform capnography was used.**

**Overall: 70 % (1094/1563)**





# Confirmed tracheal tube placement

GAMUT Update

GAMUT Database

Participation

Advanced Airway  
Management

Intubation

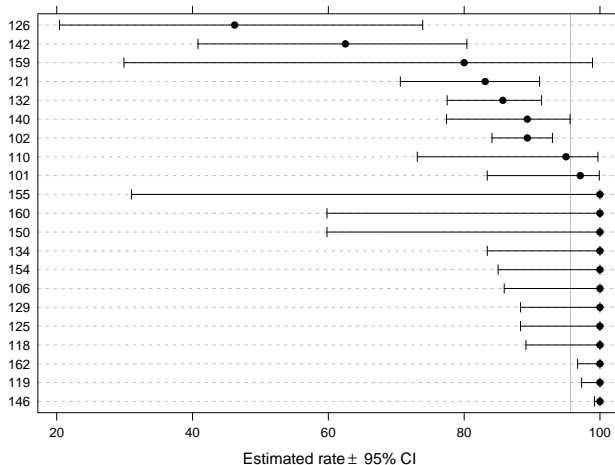
General Metrics

Focused  
Populations

Rare Events

**Percent of intubated patient transport contacts  
with documentation of confirmed tracheal tube placement.**

**Overall: 95.7 % (1607/1680)**



# Intubation

GAMUT Update

GAMUT Database

Participation

Advanced Airway  
Management

**Intubation**

General Metrics

Focused  
Populations

Rare Events

# Neonatal - First Attempt Success

GAMUT Update

GAMUT Database

Participation

Advanced Airway  
Management

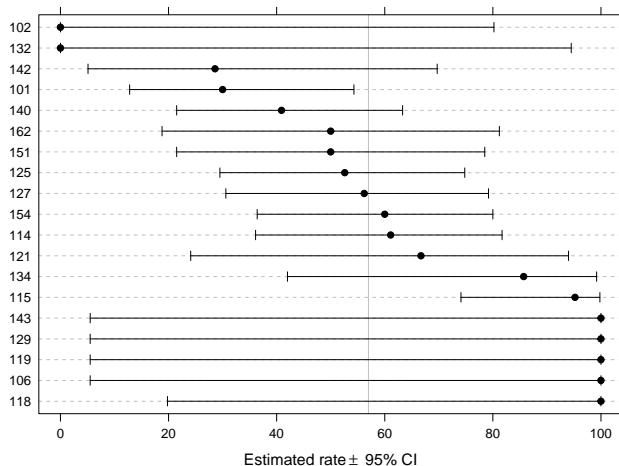
Intubation

General Metrics

Focused  
Populations

Rare Events

**Neonatal – Percent of patient transport contacts successfully intubated  
on the 1st attempt by the transport team**  
**Overall: 57 % (102/179)**



# Neonatal - DASH-1A

GAMUT Update

GAMUT Database

Participation

Advanced Airway  
Management

Intubation

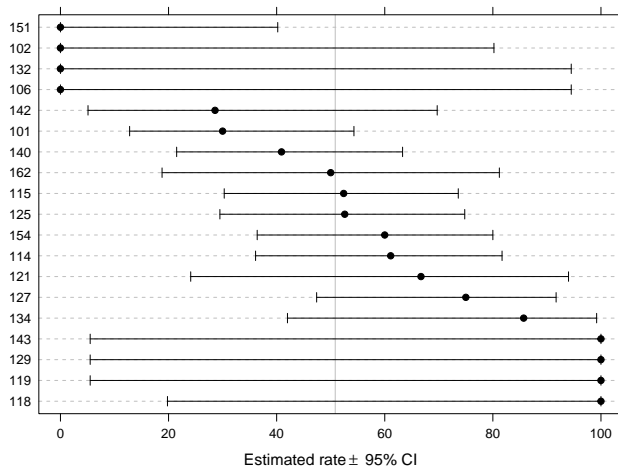
General Metrics

Focused  
Populations

Rare Events

**Neonatal – Percent of patients with definitive airway during the 1st attempt  
by the transport team without suffering hypoxia or hypotension**

**Overall: 50.8 % (91/179)**



# Pediatric - First Attempt Success

GAMUT Update

GAMUT Database

Participation

Advanced Airway  
Management

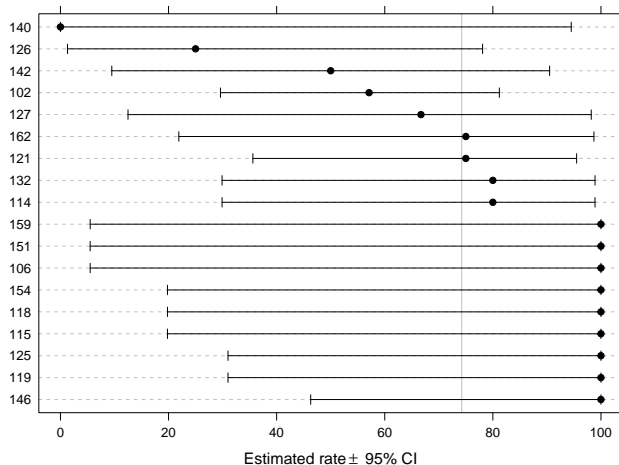
Intubation

General Metrics

Focused  
Populations

Rare Events

**Pediatric – Percent of patient transport contacts successfully intubated  
on the 1st attempt by the transport team**  
**Overall: 74.2 % (49/66)**



# Pediatric - DASH-1A

GAMUT Update

GAMUT Database

Participation

Advanced Airway  
Management

Intubation

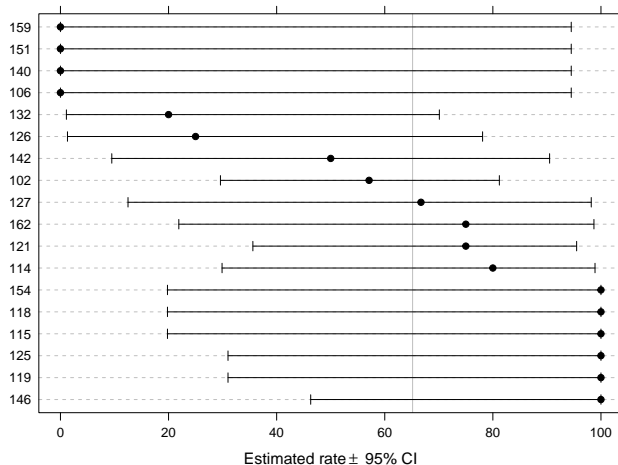
General Metrics

Focused  
Populations

Rare Events

**Pediatric – Percent of patients with definitive airway during the 1st attempt  
by the transport team without suffering hypoxia or hypotension**

**Overall: 65.2 % (43/66)**



# Adult - First Attempt Success

GAMUT Update

GAMUT Database

Participation

Advanced Airway  
Management

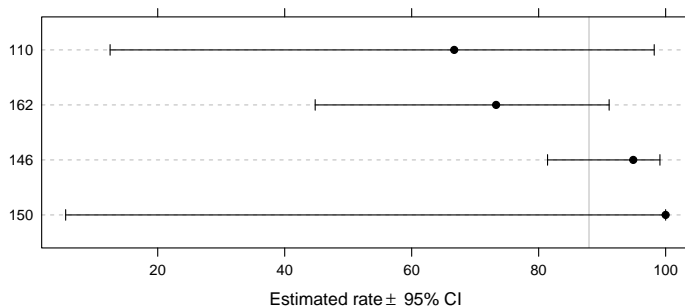
Intubation

General Metrics

Focused  
Populations

Rare Events

**Adult – Percent of patient transport contacts successfully intubated  
on the 1st attempt by the transport team**  
**Overall: 87.9 % (51/58)**



# Adult DASH-1A

GAMUT Update

GAMUT Database

Participation

Advanced Airway  
Management

Intubation

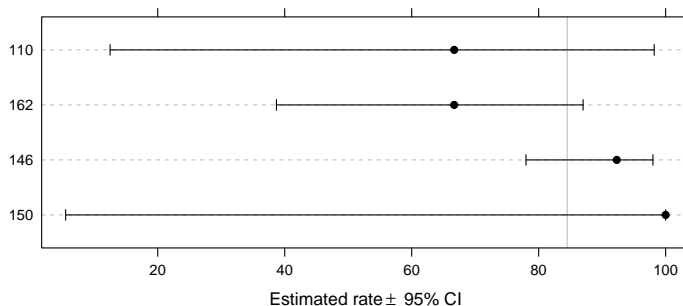
General Metrics

Focused  
Populations

Rare Events

**Adult – Percent of patients with definitive airway during the 1st attempt  
by the transport team without suffering hypoxia or hypotension**

**Overall: 84.5 % (49/58)**





# RSI protocol compliance

GAMUT Update

GAMUT Database

Participation

Advanced Airway  
Management

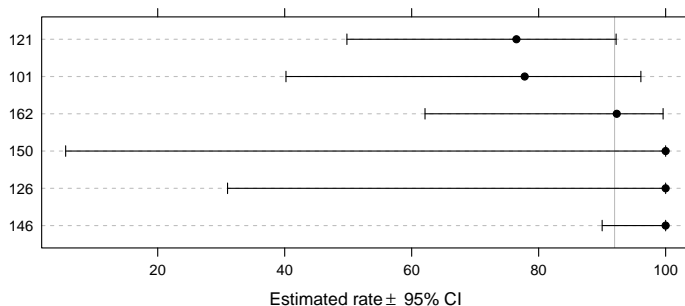
Intubation

General Metrics

Focused  
Populations

Rare Events

**Percent of patient transport contacts undergoing RSI  
where all indicated elements of the program's RSI protocol were completed.**  
**Overall: 92 % (80/87)**



# General Metrics

# Reliable pain assessments

GAMUT Update

GAMUT Database

Participation

Advanced Airway  
Management

Intubation

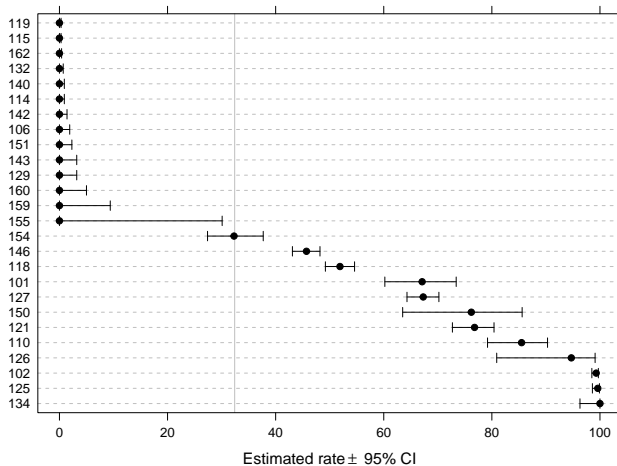
General Metrics

Focused  
Populations

Rare Events

**Percent of patient transport contacts with a  
documented pain assessment.**

**Overall: 32.4 % (4635/14297)**



# Incidence of hypoxia during transport

## NUMERATOR:

Number of patient transport contacts during which the documented pulse oximetry reading drops below 90%.

Multiple incidents with one patient are considered as one incident. If the pulse oximetry reading is chronically low or is below 90% when contact is made, the patient is not included except for those patients where the saturation has been corrected to greater than 90% and falls again.

## DENOMINATOR:

Number of patient transport contacts during the calendar month (excluding those with chronic oxygen saturations lower than 90% or oxygen saturations lower than 90% that persist throughout the entire transport).

# Incidence of hypoxia during transport

group	num	den
101	11	205
102	2	894
106	0	0
110	9	168
114	0	0
115	0	0
118	0	0

GAMUT Update

GAMUT Database

Participation

Advanced Airway  
Management

Intubation

General Metrics

Focused  
Populations

Rare Events

# Incidence of hypoxia during transport

group	num	den
119	2	0
121	0	0
125	0	0
126	4	0
127	0	0
129	0	0
132	0	0

GAMUT Update

GAMUT Database

Participation

Advanced Airway  
Management

Intubation

General Metrics

Focused  
Populations

Rare Events

# Incidence of hypoxia during transport

group	num	den
134	0	127
140	0	0
142	0	0
143	0	0
146	3	4
150	1	63

GAMUT Update

GAMUT Database

Participation

Advanced Airway  
Management

Intubation

General Metrics

Focused  
Populations

Rare Events

# HEMS Over-triage

GAMUT Update

GAMUT Database

Participation

Advanced Airway  
Management

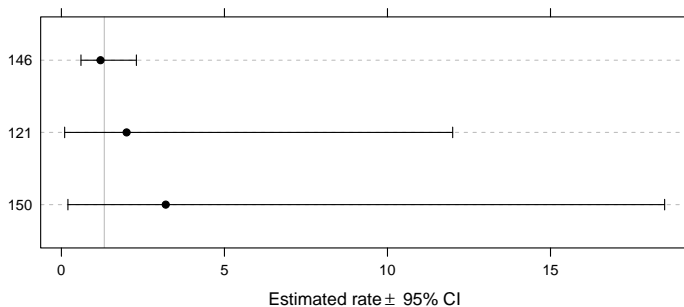
Intubation

General Metrics

Focused  
Populations

Rare Events

**Percent of the HEMS patient transport contacts  
discharged without hospital admission**  
**Overall: 1.3 % (12/912)**





GAMUT Update

GAMUT Database

Participation

Advanced Airway  
Management

Intubation

General Metrics

Focused  
Populations

Rare Events

# Focused Populations

# Neonatal Hypothermia on Arrival

GAMUT Update

GAMUT Database

Participation

Advanced Airway  
Management

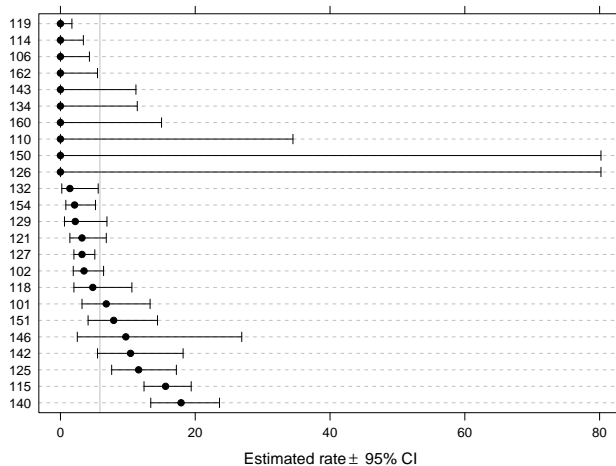
Intubation

General Metrics

Focused  
Populations

Rare Events

**Percent of neonates found  
hypothermic upon admission**  
**Overall: 5.9 % (219/3738)**



# STEMI Bedside

GAMUT Update

GAMUT Database

Participation

Advanced Airway  
Management

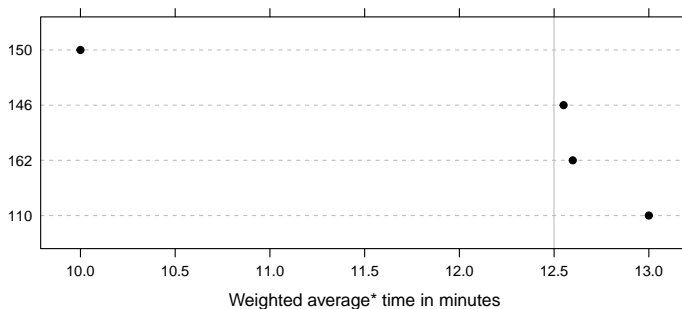
Intubation

General Metrics

Focused  
Populations

Rare Events

**Average bedside time for  
STEMI activation patients  
Overall: 12 min.**



# STEMI Scene

GAMUT Update

GAMUT Database

Participation

Advanced Airway  
Management

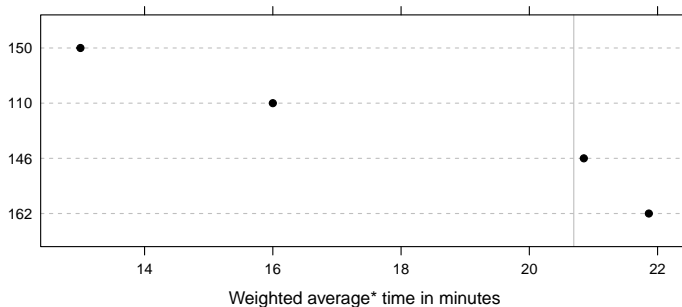
Intubation

General Metrics

Focused  
Populations

Rare Events

**Average scene time for  
STEMI activation patients  
Overall: 21 min.**



# ECG interpretation for STEMI patients

GAMUT Update

GAMUT Database

Participation

Advanced Airway  
Management

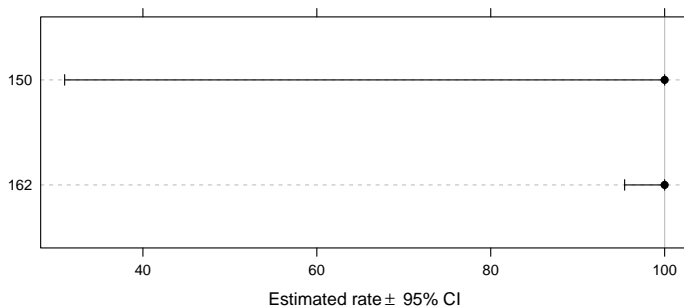
Intubation

General Metrics

Focused  
Populations

Rare Events

**Percent of transport patient contacts with accurately  
interpreted 12-lead ECG evaluations**  
**Overall: 100 % (103/103)**



# Blood glucose check for altered mental status

GAMUT Update

GAMUT Database

Participation

Advanced Airway  
Management

Intubation

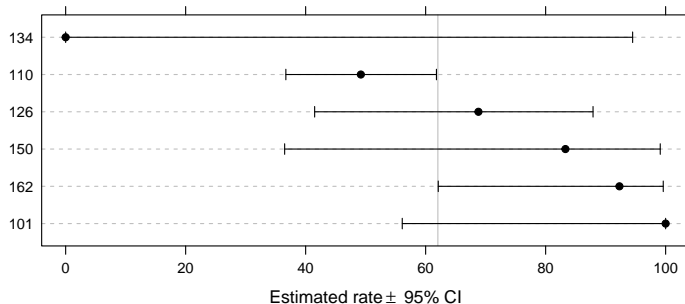
General Metrics

Focused  
Populations

Rare Events

**Percent of patient transport contacts with altered mental status  
or focal neurologic deficit with a documented blood glucose check.**

**Overall: 62 % (67/108)**



# Management of hypertension in hemorrhagic stroke

GAMUT Update

GAMUT Database

Participation

Advanced Airway  
Management

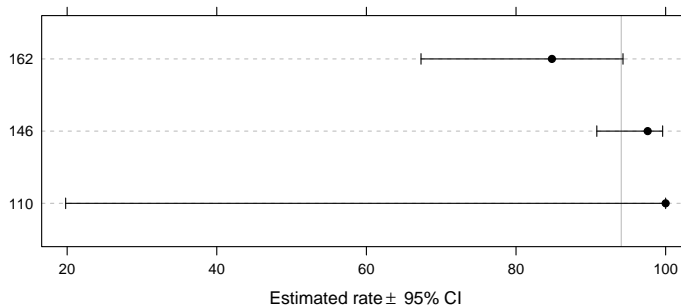
Intubation

General Metrics

Focused  
Populations

Rare Events

**Percent of transport patient contacts with  
hemorrhagic stroke and appropriate blood pressure management**  
**Overall: 94.1 % (111/118)**



# Appropriate management of hemorrhagic shock

GAMUT Update

GAMUT Database

Participation

Advanced Airway  
Management

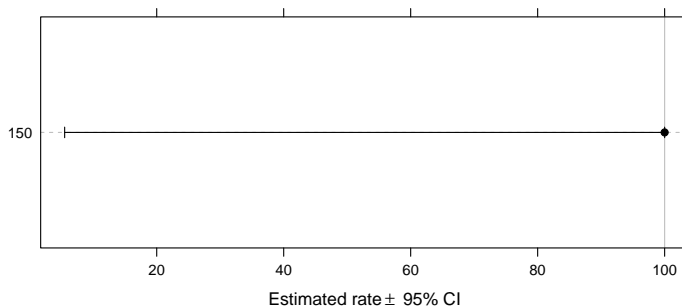
Intubation

General Metrics

Focused  
Populations

Rare Events

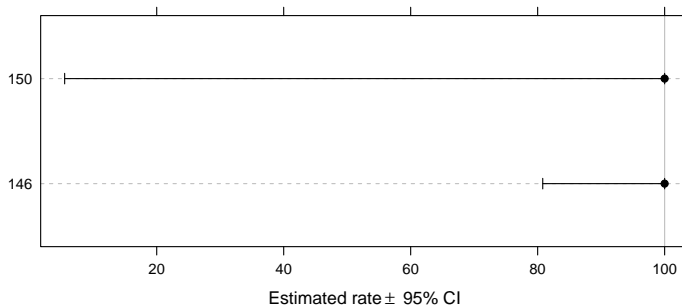
**Percent of patient transport contacts with  
hemorrhagic shock appropriately managed**  
**Overall: 100 % (1/1)**





# Appropriate management of blood pressure for aortic emergencies

**Percent of patient transport contacts with known or suspected aortic dissection receiving indicated blood pressure and heart rate therapies**  
**Overall: 100 % (22/22)**



GAMUT Update

GAMUT Database

Participation

Advanced Airway  
Management

Intubation

General Metrics

Focused  
Populations

Rare Events

# Rare Events

# Medical equipment failure

GAMUT Update

GAMUT Database

Participation

Advanced Airway  
Management

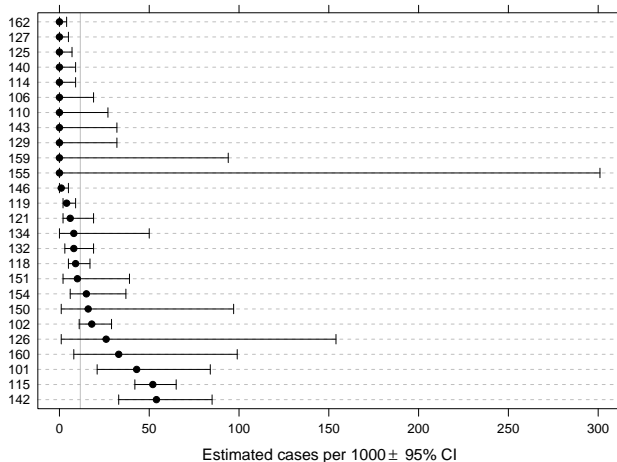
Intubation

General Metrics

Focused  
Populations

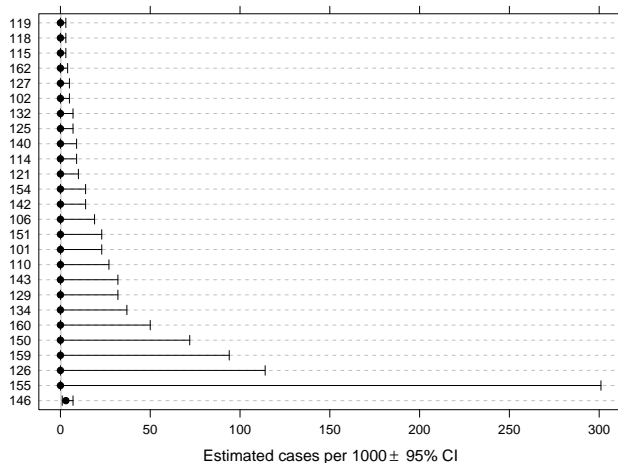
Rare Events

**Medical equipment failures  
per 1000 patient transport contacts.  
Overall: 11.6 per 1000 (166/14297)**



# Adverse drug event during transport

**Adverse drug events  
per 1000 patient transport contacts**  
Overall: 0.3 per 1000 (4/14297)



GAMUT Update

GAMUT Database

Participation

Advanced Airway  
Management

Intubation

General Metrics

Focused  
Populations

Rare Events

# Patient near-miss events

GAMUT Update

GAMUT Database

Participation

Advanced Airway  
Management

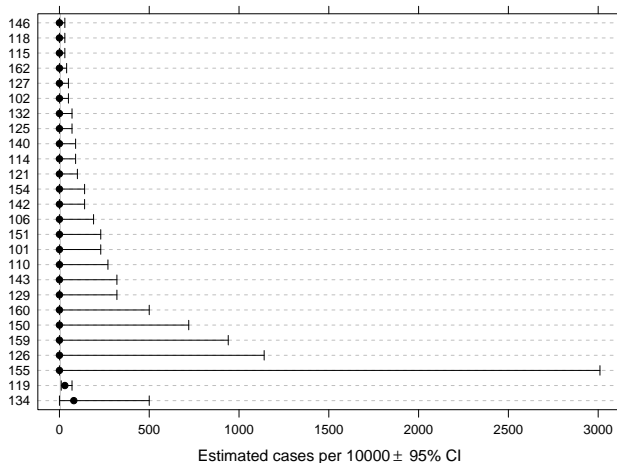
Intubation

General Metrics

Focused  
Populations

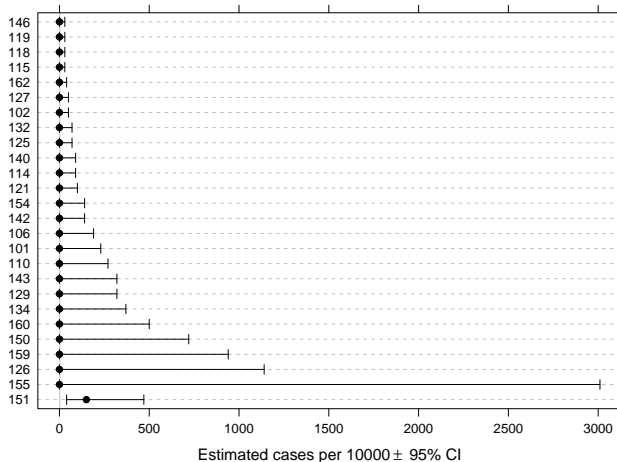
Rare Events

**(Rolling 12 month) transport-related patient mishap rate  
per 10,000 patient transport contacts**  
**Overall: 4.9 per 10000 (7/14297)**



# Rate of Serious Reportable Event

(Rolling 12 month) SRE rate  
per 10,000 patient transport contacts  
Overall: 2.1 per 10000 (3/14297)



GAMUT Update

GAMUT Database

Participation

Advanced Airway  
Management

Intubation

General Metrics

Focused  
Populations

Rare Events

# Unplanned device dislodgements

GAMUT Update

GAMUT Database

Participation

Advanced Airway  
Management

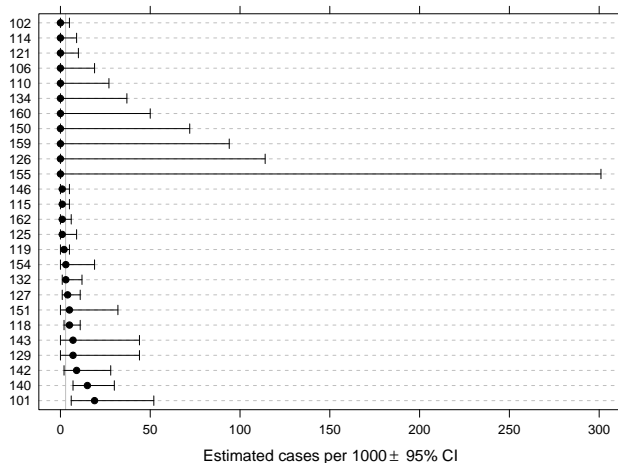
Intubation

General Metrics

Focused  
Populations

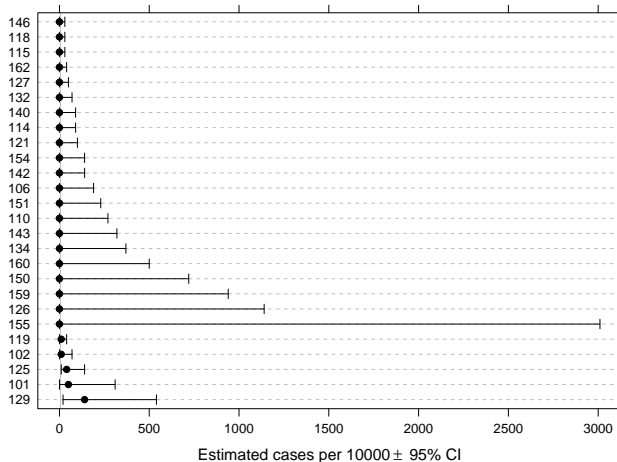
Rare Events

**Unplanned dislodgements of therapeutic devices  
per 1000 patient transport contacts**  
**Overall: 2.9 per 1000 (41/14297)**



# Medication errors on transport

**(Rolling 12 month) medication error rate  
per 10,000 patient transport contacts.  
Overall: 6.3 per 10000 (9/14297)**



GAMUT Update

GAMUT Database

Participation

Advanced Airway  
Management

Intubation

General Metrics

Focused  
Populations

Rare Events