Performance Improvement & Trauma Performance Improvement

First Quarter Report
July - September 2016

Membership:

The PI Committees shall be comprised of a representative/or their designee from:

- Each jurisdiction (5):
  - Accredited education program: Jason Ferguson/Lisa Aiken
  - Air Medical: June Leffke/Chris Parker
  - Altavista EMS: Mark Moss
  - Amherst County: Sam Bryant
  - Appomattox County: Susan Walton
  - Bedford County/Bedford City: Janet Blankenship
  - Campbell County: Michelle Turner/Frank Smith
  - Commercial Transport Agency: Jeff Tanner & Tom Walton
  - Hospital Representative: Kelly Brown, Centra R.N., Centra Trauma Services
  - Lynchburg City: Heather Childress
  - Regional Operational Medical Direction Committee: Dr. Marilyn McLeod
  - *Every EMS provider in the BREMS region is invited to attend and encouraged to speak and ask questions.

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~Committee Agenda and Minutes~

JULY 2016:

BREMS Performance Improvement Committee Agenda

Wednesday, July 20th, 2016
9:00 AM
Tate Springs Rd, Suite 19 Conference Room

1. Call to Order
2. Review of PI & TPI Plan
    - Committee will meet again in September to vote on plans
3. CQI Quarterly Information
4. CQI Quarterly Topics
    - Falls > 65 years of age
    - Refusals
5. Committee Discussion
    - Discussion of LGH representative for Trauma Review

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BREMS Continuous Quality Improvement Committee Meeting Minutes
Wednesday, July 20th, 2016 – 9AM
Tate Springs Rd; Suite 19

Members Present:

MK Allen	BREMS
Jenn Kersey	BREMS
Heather Childress	Lynchburg Fire Department
Sam Bryant	Amherst County
Michelle Turner	Campbell County

The meeting began at 9:00 am at BREMS Suite 19.

Trauma Review
MK stated that LGH has not advised of a new Trauma Coordinator. When that takes place, the committee will be notified.

Committee discussion(s)
- Mary Kathryn gave a synopsis of activities since the March 2016 meeting.
- Meeting minutes from March 2016 were reviewed.
- Mary Katherine introduced the new EMS Field Coordinator for BREMS, Jenn Kersey.
- The committee was advised that there is no new contract from the OEMS.
- Medical & Trauma PI Plans were presented to the committee for their review. Mary Katherine stated that she would like to review these plans and make changes as necessary to fit our future goals in assisting and being a resource. After a month of review, proposed changes will be presented in the September meeting to be voted on.

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- Mary Katherine advised that there is a new OEMS representative for PI for the state, Cam Crittenden, RN. She has met with BREMS representatives on the new Image Trend Elite system and will work with the council in future change over and training.
- Discussion on helping the agencies with communications with State OEMS and OMD's.
- LGH MICU staff is working on a proposal for a CPR initiative in the communities, starting with LFD. Details will follow once the program is in place.

CQI Quarterly Topics

- As decided in the March meeting, topics of discussion for this meeting were: Falls > 65 years of age and Refusals.

  - **Falls > 65**

    - Sam Bryant stated that he reviewed 22-23 calls for this particular category. While he feels that the care is to the standard, the reasoning for why these patients fell isn't being documented. He feels that 50% of these types of calls are elderly patients who are mobile where the other 50% are "shut-ins". Sam also states that in his review, providers are using c-collars appropriately.

    - Heather Childress stated that of the calls she reviewed for this category, she found that many of the patients are >80 years of age. She states that the documentation is adequate and that c-collars are being used appropriately. Their EMD system works well to identify the needs of the patient and assign the appropriate resource to the call.

    - Michelle Turner states that of the calls she reviewed for this category that many of their falls are occurring in the Nursing Homes. Michelle states that she and her staff have been in communication with nursing home

leadership to discuss this. She also states that many of the calls for falls result in lifting assistance only.

- **Refusals**

- Sam Bryant states that he feels that of roughly 4500 calls for the department as a whole per year, his department is averaging 20% refusals. However he does attribute one individual that they have been working with to assist, as causing this number to be higher than it normally would be. Sam states that he has been working with the staff on education to truly understand what an "informed right to refuse" means. He indicated that some of his staff has reached out to Dr. McLeod for on scene advice, having her speak to the patient, because the provider didn't want to leave the patient at the residence. Sam is working on education, involving other resources for further clarification.
- Heather Childress states that in her research in regards to refusals, of roughly 4200 calls per quarter by her department, that 75 were refusals that were classified as "refused care". She states that she found many of the calls are "third-party" callers, meaning that the patient did not initiate the 911 call. She found that there were several elderly patients who fell, were not injured and needed only lifting assistance. Documentation seems to be a weakness with refusals. Heather stated that she requires LFD providers to write a narrative for their call in a CHART format for more consistency. She also discovered that a majority of the refusals were in fact during the daytime hours.
  Heather also discussed resources and processes for handling refusals, as well as the development of an across the board, standard protocol for refusals.
- Michelle Turner stated that in her research of refusals for her department she found many calls that were completed, as a refusal of care, however did not contain a set of vital signs. She states that she also find inadequate documentation in her provider's refusal calls as well.

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- Mary Katherine announced the new topic for the next quarter: Cardiac Arrest/CPR
- There was an update given on the protocol changes; The addition of Norepi, Toradol, Intranasal administration, the removal of Dopamine and the addition of D10% as a drip (100cc bolus) and the removal of D50 prefilled syringes (due to cost, expiration per Nadine). Due to these changes, there will be a logistical drug box exchange take place in the next few months. The agencies will be notified.
- Mary Katherine stated that the BREMS staff has developed training for these changes and will be more than glad to come out to the agencies and present if needed.
- The next meeting is planned for September.

Meeting was adjourned at 10:25 AM

Submitted by,

Jenn Kersey
BREMS EMS Field Coordinator

September 2016:

BREMS Performance Improvement

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Committee Agenda

Thursday, September 22, 2016
9:00 AM
CVCC EMS Programs Room 2505

1. Call to Order
2. Review of PI & TPI Plan
    - Discussion of plans for a subcommittee
        i. Thoughts on recommendations for updates to the Regional TQI/MQI forms.
    - Committee to vote on plans; Plans will change likely to a combined plan once the contract verbiage from the OEMS is finalized
3. CQI Quarterly Information
    - New Trauma Services Coordinator – Kelly Brown
4. CQI Quarterly Topics
    - CPR – Data Review

   i. Regional Intubation data review

- Data Review of Falls and Refusals
- Suggest pediatric airway/intubation class. Thoughts on an authority/specialty to teach that class.
- Discuss topics for the next two quarters.
   i. Suggestions: New protocol changes and how they are effective; spinal immobilization review from 1st Quarter
- What topics would the committee like to see Trauma Services Review

5. Committee Discussion

- Open
- Janet/June on new form/method of CQI
- Thoughts on Regional Benchmark numbers and percentages?
   i. Ex. Intubation success rates, target response and scene times, etc.

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Members Present:

Jenn Kersey	BREMS
Sean Regan	BREMS
Sam Bryant	Amherst County
Jason Ferguson	CVCC
June Leffke	Boonsboro Rescue/Centra One
Janet Blankenship	Bedford County Fire & Rescue

The meeting began at 9:00 am in CVCC EMS Room 2505.

Review of PI & TPI Plans:
Jenn displayed the plans via overhead for everyone present to view. She indicated that there were some clerical/grammatical changes made throughout the document.

- On page 3 of the TPI document, under Primary Objectives, the "Manpower and Training Committee" will be changed to the CQI Committee in conjunction with the OMD Committee and the BREMS Council Training Coordinator.
- On page 3 of the same document, under membership, the following names were changed for jurisdictions: Gary Roakes to Sam Bryant for Amherst Co, Heather Childress for LFD, Altavista – Mark Moss was added, Chris Parker was added to Air Medical, and Kelly Brown was added to Hospital Representative. There was discussion on "Commercial Transport Agency". It was recommended that we add a representative from DRT and Centra Transport. These agency leaders will be contacted to provide representation if they would like to participate in the CQI process.
- On page 4 of the same document, under Regional EMS System Analysis, "Establish Regional Clinical Benchmarks" was discussed. At our next meeting in December, we will determine those benchmarks.

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- On page 8, the BREMS Regional EMS & Trauma (Or Medical) Quality Improvement Form was recommended for upgrades and changes. Jason recommended that Chris Parker develop a new form with the same content. It was asked that "Patient name and DOB" be stricken from the form. An age line can be placed to obtain that demographic. Also, it was recommended to add the Centra MR#.
- The applicable changes will be made for the Medical PI Plan as well.
- The committee was advised that when the new languages comes down from the state OEMS, that these plans will change to one combined document. And when that change is made, the committee will be provided a new plan document.
- June requested that the QI Form be included in the CQI meetings and that a filter process be re-implemented for this process.
- All committee members agreed unanimously to keep the plans as is, with previously mentioned corrections and updates to the forms added.

Committee Discussion(s):

- Jenn indicated that the BREMS staff is developing the plans for a sub-group to the CQI committee. This group will consist of seasoned providers (both BLS and ALS) who are active and currently running consistent calls, a 2nd year member of the Paramedic Program at CVCC, and RNs from Centra who are willing to participate. Dr. McLeod and the OMDs have supported this idea in the past and we will be developing this group soon. The group will not vote or have bearing on the CQI committee in any way other than a talk group to discuss patient care practices, what they are seeing in the field to the hospital, and how protocols and changes effect them on a daily basis. Their comments and suggestions will be brought forward to the CQI and OMD Committees for further discussion. All members present support this idea. The committee will be advised when the group has been chosen and finalized.
- Jason requested that we attempt to look at medical complaints where 12-lead EKGs should be performed, as well as time differential in regards to

on-scene times to EKG. Jenn advised that she would inquire to formulating data for this inquiry. As well as contacting Cindi Cole with the Cardiovascular Group to see how we can obtain this data on their end as well. Jason also asked about an inquiry to see how patients are being moved from the residence or scene, to the unit. To ensure that critical patients aren't ambulating to the unit.

- Janet & June introduced a method for their QI process that they have implemented in Bedford Co. An example protocol, Critical Indicator Definitions, a Critical Identifier Worksheet, and a Quarterly Report Worksheet were handed out. The committee stated that this was excellent. Jenn will be forwarding this on to area leaders with recommendations from the CQI committee for its use.

Trauma Review

- Jenn advised the committee that Centra has a new Trauma Services Coordinator, RN Kelly Brown. Kelly comes with a wealth of knowledge and years of experience. MK and Jenn met with her on 9/21 at the BREMS office and were pleased with her ideas and plans for this position. She, Jenn and Sean will be working together going forward on education nights and events. She will be attending the December meeting.
- The consensus of the committee was to ask Kelly to provide data and statistics regarding Spinal Immobilization. This topic was the choice of the 2016 4th quarter CQI meeting and December will be the 6-month mark. We would like to see if there has been an improvement in falls being properly immobilized.
- Jason also recommended that we review our Spinal Immobilization protocol with her and see if not using back boards is working.
- Sam & Janet also made mention that certain Air Medical teams require back boarding, such as Carillion. We will investigate as to sending out a notice for this.

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CQI Quarterly Topics

Review from last quarter –

- Sam states that his refusal rate is improving.
- Both categories from last quarter, Falls > 65 y/o (Spinal Immobilization) and refusal rate improvement will be reviewed in December.

CPR –

- Jenn presented data on percentages in relation to First Monitored Rhythms obtained, ROSC (both adult and pediatric) and Arrest Classifications. A detailed report of pediatric ROSC was given.
- June requested to see data on not just average "on scene" times but scene times where the patients were resuscitated and transported. Jenn will produce and have for follow up data presentations.
- Jenn pulled data for all V-fib and V-tach cardiac arrests. The least on-scene time for these types was 35 minutes. So we as a region are already close to the 40-minute mark that the OMD Committee implemented. June requested that the parameters for the new directive in the protocol for working V-fib/V-tach cardiac arrests 40 minutes be further developed. She feels that the current statement is too vague and not specific.
- Jenn asked all leaders to ensure that the providers are not using "not applicable" unless absolutely necessary. The numbers are not accurate when there are as many "not applicable" or "not completed" entries as we are seeing in the data. Janet advised that she would take this back to her providers. She also asked that Jenn follow up with the state to check on data match up. She states that the two systems are not correlating correctly. She also asked for definitions for information codes to be obtained. Jenn advised she would check with Bryan at the OEMS.
- Jason advised that BREMS should inquire with area leaders to produce run reports that are showing inaccurate data to see where the issue is and

present to the CQI Committee. We will implement this process going forward.

- Sam expressed concerns with HIPAA and that his county has a specific guidelines as to this. He advised that he would check with the county attorney and would inquire as to having the CQI committee members added to this guideline.
- Jenn presented data for Advanced Airway (ETT vs KING) as well for the committee. The numbers for adult intubations are excellent. However, we are 50% on pediatric/infant intubations. With that information, the committee agreed for Jenn & Sean to develop a Pediatric Advanced Airway class. And it was recommended that this class be yearly and mandatory. BREMS will contact the OMD Committee and request their approval for making this mandatory. The committee was asked for suggestions on who might be an authority to teach such a class. Suggestions made were: Dr. Tom Delaney, NICU Nursing Staff, Anesthesiologist Group from Children's Hospital in DC, Respiratory Therapy Specialists such as Jimmy Bogle and Sean Regan. Jason advised that it would be best to do separate classes for Neo and Pediatric. June stated that Centra One is having a ground/air resuscitation academy on 11/10/16 and she will check to see if that could be an option for some providers to come to. BREMS will work with leaders and coordinators to continue plans for this.
- It was decided by the committee to review Neuro – Stroke/CVA for this current quarter. Details needed will be: Primary Impression, scene time, Code Strokes being called in the field, was an accurate GCS obtained, was a BGL obtained and did the ED activate the Code Stroke promptly. Jenn stated she would work on this and inquire if Jodi King, RN Centra Stroke Council will assist.

Meeting was adjourned at 11:10 AM

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Submitted by,

Jenn Kersey
BREMS EMS Field Coordinator

(Continued)

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Data Presentations for September 2016

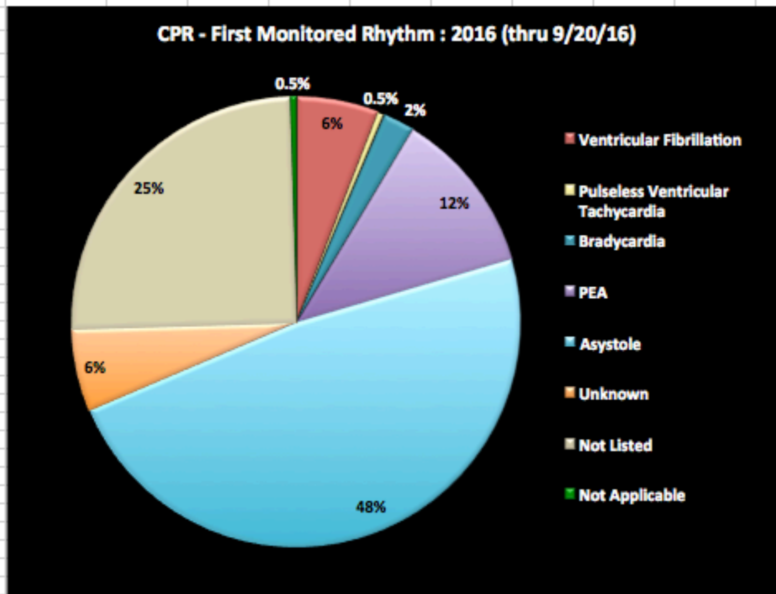
220 Total CPR Cases Recorded by VPHIB Report Writer 2.0

*Please note this data does not include Version 3, therefore does not include Appomattox Rescue Squad as they have fully transitioned to Version 3.

*Please note that this data may be altered by information that was not completed in the original run.

Average Age	63.4

Average Enroute Time	0:09:14
Average Scene Time	0:35:02



Ventricular Fibrillation	13
Pulseless Ventricular Tachycardia	1
Bradycardia	5
PEA	26
Asystole	106
Unknown	13
Not Listed	55
Not Applicable	1

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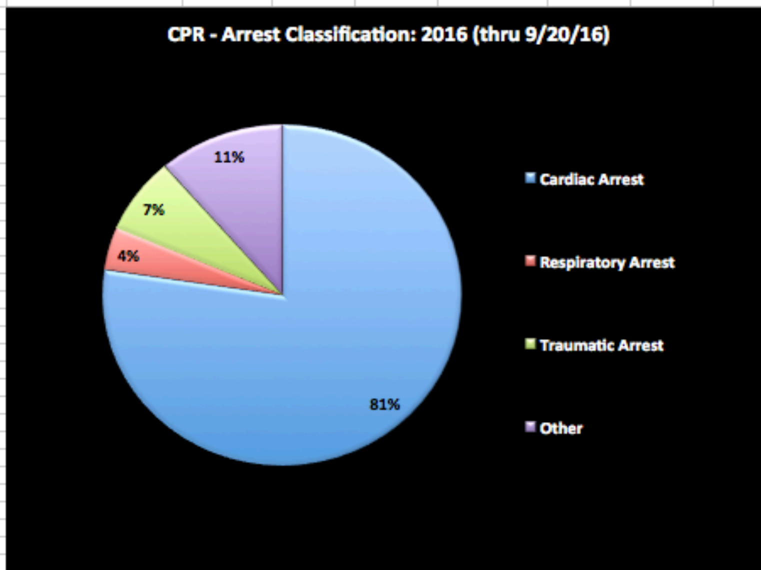
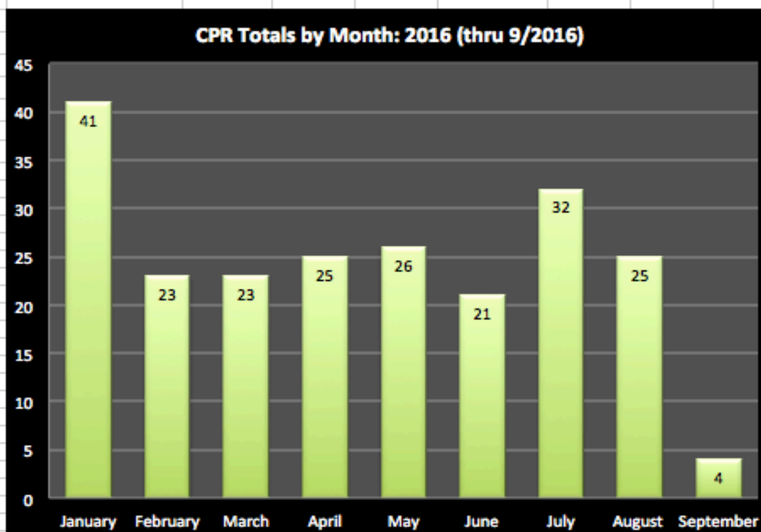


Cardiac Arrest	171
Respiratory Arrest	9
Traumatic Arrest	16
Other	24



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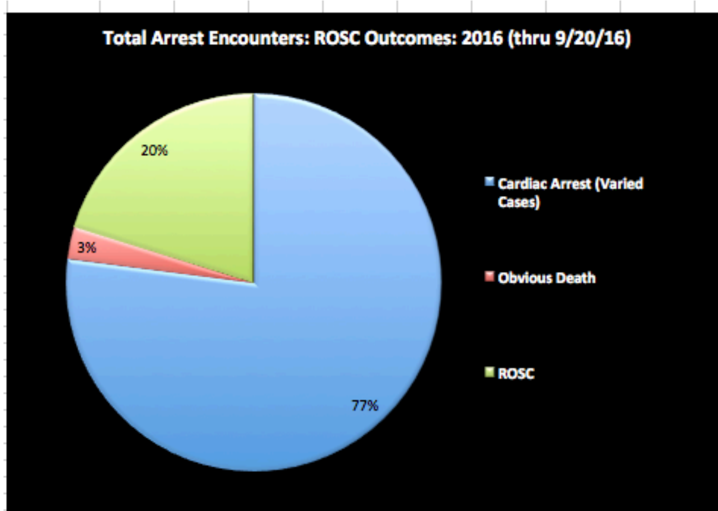

Sum of 58 ROSC	
Cardiac Arrest (Varied Cases)	220
Obvious Death	8
ROSC	58

Cardiac Arrests in Ages < 18	6	ROSC = 2

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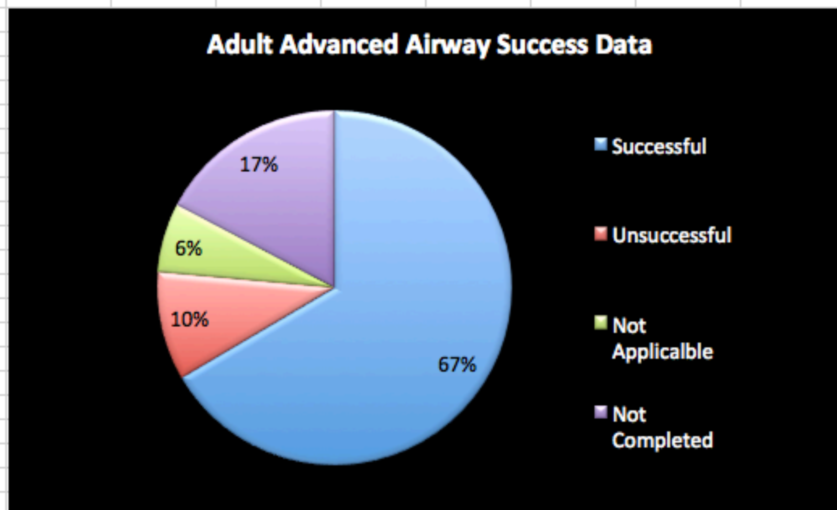
284 Total Intubation/KING LT Attempts with 242 Cases Recorded by VPHIB Report Writer 2.0

*Please note this data does not include Version 3, therefore does not include Appomattox Rescue Squad as they have fully transitioned to Vers

*Please note that this data may be altered by information that was not completed in the original run.

Average Age = 62 y/o
Average attempts = 1.17



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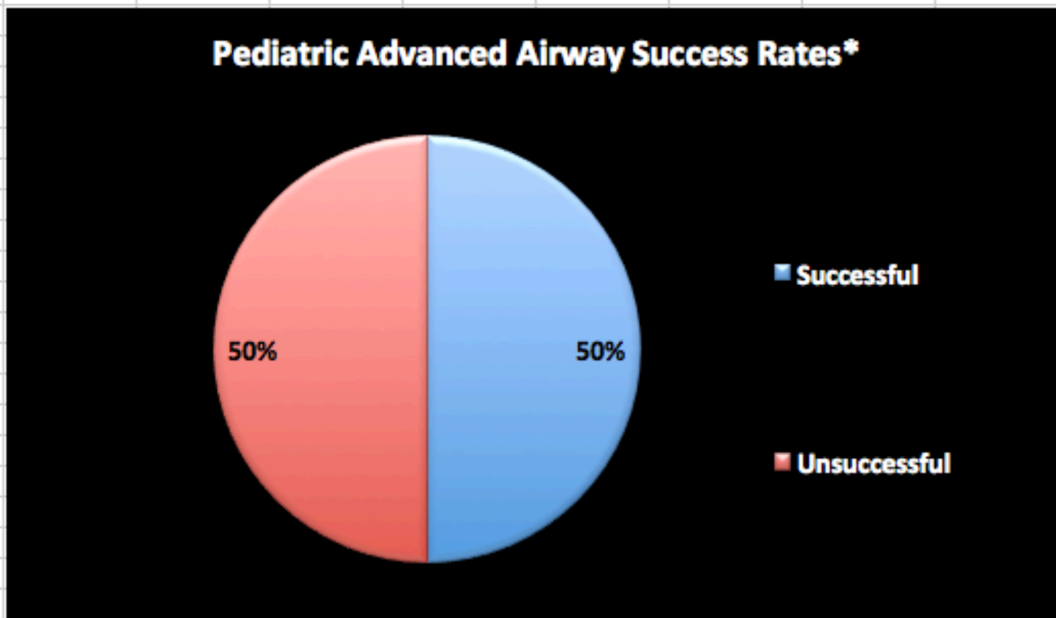

*
5 m/o - 1st attempt unsuccessful, second attempt successful
12 y/o - 1st attempt successful
11 y/o - 1st attempt unsuccessful
2 m/o - 1st attempt successful
2 m/o - 2 attempts unsuccessful
12 y/o - 1st attempt successful
4 y/o - 1st attempt successful
1 m/o - 1st attempt unsuccessful

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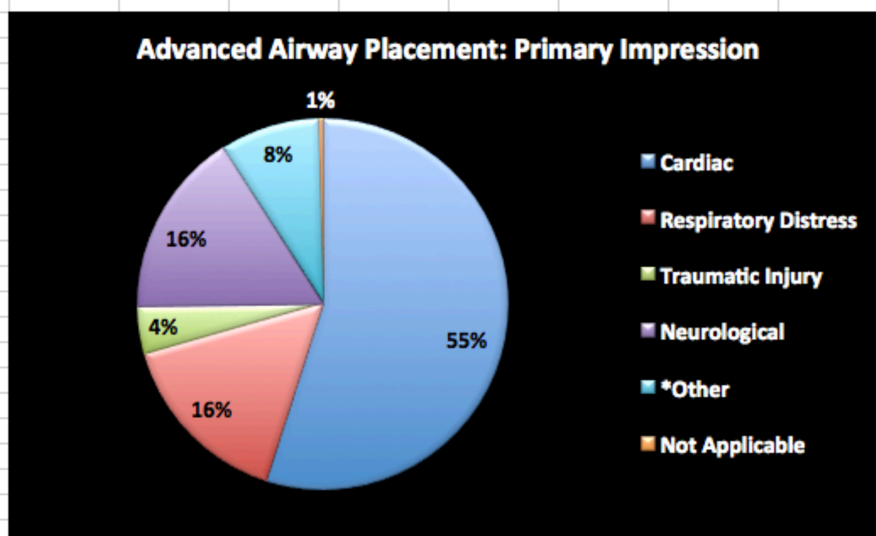
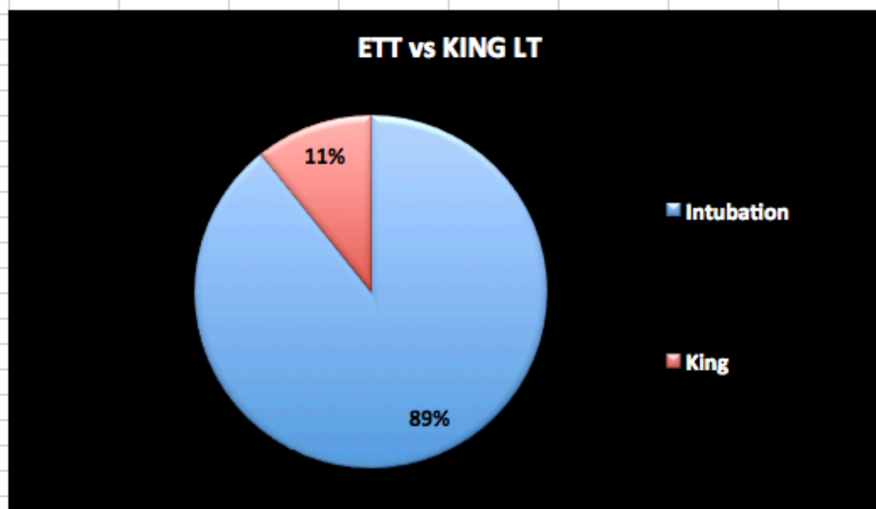


*Other: Allergic Reaction, Hypovolemic Shock, Poisioning/Drug Ingestion, Endocrine/Hyoglycemia, Chest Pain, Behaviroal, Accidental Toxic Esposure



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