



***BUCKS COUNTY  
EMERGENCY HEALTH  
SERVICES***

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**BUCKS COUNTY EMERGENCY HEALTH  
SERVICES**

**EMERGENCY MEDICAL SERVICES  
QUALITY IMPROVEMENT**

**OPERATIONAL PLAN**

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# QUALITY ASSURANCE PLAN

## TABLE OF CONTENTS

*To be corrected*

Quality Assurance General Considerations.....	3
Quality Improvement Committee .....	4
Quality Assurance Committee .....	4
Position Descriptions .....	5
Squad Quality Assurance Coordinator .....	6
Criteria for BLS Review.....	7
Criteria for ALS Review.....	8
Audit Services .....	9
Self-Audit Service Quarterly Report .....	10
Example – Prehospital Report Form Review.....	11
Appendix A- Minimum Sample Size for Trip Sheet Review.....	13
Examples.....	14
Continuous Quality Improvement-Plan of Action.....	15

## QUALITY ASSURANCE GENERAL CONSIDERATIONS

1. Multi-disciplinary approach

This includes the Committee make-up of Squad QA Coordinators, unit medical director physicians, Dept. of communications, Invited ER nurses, Paramedics, EMTs, and First Responders.

2. Establish Purpose

To monitor and evaluate the quality and efficiency of patient *care* performed by professional health care providers in the pre-hospital *setting*.

3. Determine approach, screening mechanism, review method

See attached forms.

4. Involve all system components – not just providers

This includes emergency room staff (i.e. command physician), medical records, QA Committee, and Medical Director.

5. Monitor trends in care

A continuous review of cases to identify trends, problems, and superior treatment.

6. Incorporate positive case management to serve as exemplary models rather than focusing on problem cases

As part of the routine audit, cases are *also* reviewed for ones that were well managed, well documented, etc.

7. Re-enforcement activities

Primary course is education or re-education, with discipline as last resort.

8. follow-up *at regular intervals* to determine if “QA/PI” has been effective

9. To be used as a model for individual squads in setting up their QA programs.

## **QUALITY IMPROVEMENT COMMITTEE**

### **PURPOSE**

By using the peer review process, Monitor and evaluate the quality and efficiency of patient care performed by professional health care providers in the pre-hospital setting. (Professional Health Care provider refers to Physician, Nurses, Physician Assistants and agents of physician extenders including Emergency Medical Technicians-Paramedics, HPRN's, and Emergency Medical Technicians.)

### **CHARGE change to SCOPE**

1. Evaluating and improving the quality of care rendered.
2. Assign educational and/or disciplinary actions against Professional Health Care Providers when such actions are recommended without malice and are intended to improve the standard of pre-hospital health care.
3. Reducing morbidity and mortality through measures intended to improve the delivery of pre-hospital health care.
4. Insure adherence to protocols established by the Bucks County Emergency Health Council for the provision of pre-hospital emergency care.
5. Forming recommendation for consideration toward establishment and revision of these protocols.

Work in coordination for consideration with appropriate standing committees of the Emergency health Council as necessary.

### **GUIDELINE**

Reference – Conflict of Interest

Due to the nature of the committee, it is essential the deliberation and decisions are objective and independent of outside influence. To deter against malice, the following guidelines shall apply to all members:

## **QUALITY ASSURANCE COMMITTEE**

### **GUIDELINE, Continued**

1. Any member whose case is being adjudicated will not participate in deliberations or decisions.
2. Declare any EMS or local related organization members are affiliated with.
3. Any member, who, for any reason, feels predisposed toward a judgment or who, for any reason, is unable to provide an entirely objective viewpoint will not participate in deliberations or decisions; any opinions or hearsay evidence, not specifically borne out of fact of objective data will not be considered during deliberations or decisions.
4. All members of the committee including visitors will sign an agreement of confidentiality.

## **POSITION DESCRIPTIONS**

### **BUCKS COUNTY QUALITY IMPROVEMENT COORDINATOR**

1. Supervise the collection of data in order to obtain elements for quality assurance purposes.
2. Process, *analyze*, and provide quality assurance reports based on collected data.
3. Analyze quality assurance data to determine system trends, activities and developments; report this analysis to appropriate personnel, committees and agencies.
4. Audit pre-hospital patient records in accordance with protocols established by the responsible agency of the Bucks County Emergency Health Council for both ALS and BLS cases.
5. Match screened ALS calls and obtain information from the hospital Emergency department and the EMS office as necessary to obtain complete information on a given case for confidential, quality assurance peer review purposes.
6. Present screened cases to the Bucks County Quality Improvement Committee without bias, opinion or recommendation.

## UNIT MEDICAL DIRECTOR

- Unit Medical Director
- Carries out appropriate duties as defined in Act 45/82.
- Serves as a resource to the squad QI Committee when questions of appropriateness of intervention and care are discussed.
- Makes final decisions on recommendations from the squad QI Committee concerning change of active command status/reeducation of the EMS provider.
- Works closely with the squad QI Coordinator to ensure Committee actions are effective and evaluate trends that may be corrected with alterations in policies/procedures.
- Serves as liaison between Regional Medical Advisory Committee and squad Quality Assurance Committees.

## SQUAD QUALITY ASSURANCE COORDINATOR

- Squad QI Committee Chairperson / Coordinator
  - Conducts and mediates QI Committee meetings making sure actions are within the Committee's charges.
  - Ensures strict confidentiality by the QI Committee members in review of cases.
  - Assures squad participation in BCEHS plan
  - Appoints new member/replacement members to the QI Committee.
  - Makes final decision on recommendation for action in the event there is a tie among the Committee members.
  - Drafts response letters to the involved parties of reviewed cases.
  - Communicates to the Unit Medical Director recommendations of the QI Committee concerning change of status of a paramedic (second status, suspension, etc), as well as the BCEHS CPI Coordinator.
  - Reports the activities of the Committee (respecting confidentiality) to the BCEHS CPI Coordinator on a monthly basis.
  - Forwards Committee recommendations on changes in protocols to BCEHS CPI Coordinator to be forwarded to ALS Systems Committee.

Works very closely with the BCEHS CPI Coordinator in executing the administrative aspects associated with the peer review recommendation/decision

## SQUAD QUALITY ASSURANCE COMMITTEE

1. Committee operates at the discretion of Unit Medical Director.
  - County-wide promotion of Quality Improvement
    - Monthly audits
    - Monitor trends
      - Subsequent continuing education class
    - Research
      - Local
      - State-wide
  - Incorporate positive case management
  - Promote education
  - Promote active Medical Direction
  - Assure that QA/QI basis is non-punitive
  - Facilitate inter-squad communication and exchange of information
  - Facilitate communication between squads and BCEHS
  - Close the communication loop with involved parties
  - Continuously assess BCEHS QI Plan and update PRN
  - Positions
    - Bucks County Quality Improvement Committee
      - Supervise data collection
      - Supervise trend analysis
      - Communicate with Squad QI Committees
        - Assure active participation in BCEHS QI process
        - Identify trends
        - Facilitate the addressing of trends
        - Obtain quarterly squad QI reports
      - Facilitate the obtaining of hospital records for the purpose of case review

### **CRITERIA FOR BLS REVIEW**

1. No ALS available: any seriously ill or injured patient needing but not receiving ALS.
2. Trauma cases:
  - a. Trauma management – patient and scene appropriately managed.
  - b. MAST – any case utilizing MAST.
  - c. Under triage – any trauma case meeting absolute criteria that are transported to a non-trauma center.
  - d. Over triage – any trauma case that is transported to a trauma center that does not meet absolute criteria. These cases must be checked to see if the incident location was closer to another hospital.
3. Medical case management: appropriate treatment given; i.e. oxygen application, etc.
4. Exceptionally well managed/documented cases.
5. Cases referred for quality assurance review.
6. Cases involving the use of AED (Automatic External Defibrillator)
7. On scene times over 10 minutes involving trauma cases, or over 20 minutes involving medical cases without documented explanation in narrative.
8. Air Unit dispatches.
9. Any units diverted en-route to a hospital

### **CRITERIA FOR ALS REVIEW**

- 1) On scene time > 20 minutes without explanation
- 2) Treatment indicated / required not performed
- 3) Medication indicated / required not administered
- 4) Incorrect medication administered / wrong dosage
- 5) All Multi-system Trauma patients
- 6) All cardiac arrest resuscitations
- 7) All intubations (and attempts)
- 8) Failure to use endotracheal tube confirmation device
  - a. Esophageal detector device / End Tidal CO
- 9) Incomplete Documentation
  - a. Refusals without appropriate signatures and documentation
  - b. Versed facilitated intubation / Pharmacological assisted intubations
  - c. Pre-hospital spinal immobilization assessment
- 10) Referred cases
- 11) Restrained patients including chemical restraint
- 12) Air Unit dispatches
- 13) Any units diverted en-route to a hospital

## **AUDIT SERVICES**

It is the responsibility of all services to audit at a minimum, a statistically significant portion of all reports (as defined in appendix A), from which they can derive the information required on the Service Quarterly Report. This report is mandatory and must be completed by the service's Medical Director or their Squad Quality Assurance Coordinator. Services will submit the Self-Audit Service Quarterly Report form to the Regional Quality Improvement Coordinator no later than 60 days after the quarter being reviewed.

### **AUDIT DESIGN**

How each service chooses forms to review will be based upon the design and needs of the service, with advisement of the Unit Medical Director. The Regional Council requires only a statistically significant portion to be audited. That is to say the review is a percentage of the total reports the services have. For some services with very small call volumes, a 100% audit may be necessary. For services that have a large call volume, they will need a smaller percent of their calls reviewed.

Some services may choose to pick the reports to be reviewed at random – based upon no specific prerequisite. This is almost like a “lotto” system, where you can choose “out of a hat”, or every 5<sup>th</sup> or 10<sup>th</sup> (or whatever) report.

The Pennsylvania Department of Health and/or the Regional Council may require all reports fitting pre-determined criteria (for example, all chest pains, or all bicycle accidents). Services may also choose the reports they want to review based upon a list of criteria they choose. Even if the number of reports which are reviewed based upon criteria is equal to or greater than the “statistically significant proportion” for that quarter, the service should choose other reports at random, to assure other problems (or exemplary treatment!) isn't slipping by unnoticed.

Any time a complaint is lodged or investigation conducted regarding that patient encounter, a full review of the “trip sheet” is warranted. (To assist with complaint investigation, please reference the Pennsylvania Department of Health Complaint Investigation Manual.)

**SELF AUDIT SERVICE QUARTERLY REPORT**

AFFILIATE NAME/UNIT NUMBER:

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QUARTERLY REPORT FOR:

\_\_\_\_\_, year \_\_\_\_\_

Total Calls \_\_\_\_\_ # Calls Audited \_\_\_\_\_

Initiated by:	Number	Percent
Regional Council	_____	_____
Affiliate	_____	_____
Other attendant	_____	_____
Patient	_____	_____
Other	_____	_____

( ) Random Audit  
and/or

( ) Criteria:

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Unless otherwise specified, please complete this report with regards to calls handled by your Affiliate. This report should be returned to the Regional Council no later than sixty (60) days after the quarter being audited.

EXAMPLE  
PREHOSPITAL REPORT FORM REVIEW

Litho code \_\_\_\_\_ Date \_\_\_\_\_ Disp. Time \_\_\_\_\_

Type of call:                      ( ) medical                      ( ) trauma  
( ) emergency prehospital    ( ) routine interfacility ( ) emergency interfacility

The following documentation items were noted:

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The following actions were taken:

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The following process (protocol) items were noted:

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The following actions were taken:

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EXAMPLE, Continued

The following system items were noted:

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The following actions were taken:

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The following outcomes were noted:

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The following actions were taken:

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Signature \_\_\_\_\_ Date \_\_\_\_\_, 19 \_\_\_\_

*ALL SQUADS WILL REVIEW 35% OF ALL CALLS INCLUDING MANDATORY  
AUDITS*

APPENDIX A

**MINIMUM SAMPLE SIZE FOR TRIP SHEET REVIEW**

<u>TOTAL CALLS</u> <u>PER MONTH</u>	<u>MINIMUM # CHARTS</u> <u>TO REVIEW</u>
1-30.....	100%
31-99.....	30%
100-149.....	31%
150-249.....	32%
250-349.....	33%
350-449.....	34%
450-549.....	35%
550-649.....	36%
650-749.....	37%
750-849.....	38%
850-949.....	39%
950-1049.....	40%

AT LEAST 5 OF THE CALLS REVIEWED MUST BE SELECTED AT RANDOM.

See next page for examples

## Examples

- A. Service runs less than 30 calls.  
If you ran 28 calls you would have to review 100% (28) calls. (Don't worry about the "random rules"; by default they all are mandatory).
- B. Service runs more than 30 calls – chooses all reviewed calls at random.  
If you ran 150 calls and did not have a set of criteria to choose the calls, you would have to review 32 of them. Since you have no particular criteria the 32 you choose will already be at random – so the "random rule" is fulfilled.
- C. Service runs more than 30 calls – chooses more than the minimum, based on criteria:  
If you ran 432 calls and chose 38 of them because they fit into some sort of review criteria, you would already have fulfilled the minimum of 34 calls. Now the service has to choose at least 5 (extra) at random, because the 38 they chose were based on criteria.
- D. Service runs more than 30 calls – chooses less than the minimum, based on criteria:  
If you ran 627 calls and picked 30 of them based upon criteria, you would have to choose 6 more to fulfill the minimum of 36. Those 6 would already fulfill the "random rule".

IF YOU HAVE ANY QUESTIONS ABOUT HOW MANY YOU WOULD HAVE TO REVIEW, PLEASE CONTACT YOUR REGIONAL COUNCIL

## **CONTINUOUS QUALITY IMPROVEMENT – PLAN OF ACTION**

The process of continuous quality improvement includes:

1. identification of trends/assessment
  - a. document review
  - b. meetings
  - c. observation
2. evaluation
  - a. analysis
3. providing feedback and education to address concerns
  - a. written
  - b. verbal
  - c. hands-on
4. monitoring of the results to assure appropriate changes have occurred
  - a. re-evaluate, as in #1

Assessing the compliance to protocols by reviewing the trip sheets is but one part of the quality improvement program. There are many issues that require other techniques to assess the situation and identify that a problem exists. Once the problem is identified, methods to correct the problem can range from simple administrative intervention (such as setting up a station cleaning schedule to assure the housekeeping is done) to problem-solving committee meetings, and requests for funds and grants. When the problem is solved, steps have to be taken to assure that the problem does not reoccur, and that the solution chosen is truly the correct one.