

North Carolina College of Emergency Physicians Standards for the Selection and Performance of EMS Performance Improvement



North Carolina EMS Performance Improvement Guidelines

The purpose of this guideline is to provide direction to EMS Agencies with respect to patient care based quality management and performance improvement. Each of these topics address either an EMS Service Delivery, Personnel Performance, or Patient Care issue which is either important to quality or has been identified as a high risk or high liability area for Emergency Medical Services.

Please refer to the North Carolina College of Emergency Physicians Standards for Medical Oversight and Data Collection Frequently Asked Questions (FAQs) for information on how each EMS System's Peer Review Committee must address this document.

The items listed in this guideline are of more value when trended (monthly or quarterly as noted) and then divided up among the yearly peer review meetings for review and discussion. How frequently each item is presented and discussed within the Peer Review Committee should be determined by the EMS Systems call volume and resources. Every item in this guideline is designed to be reviewed and discussed at a minimum of once each year with the exception of the 6 EMS Toolkits which are designed to be reviewed and discussed twice per year.

Topics are grouped into the following areas:

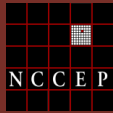
- * **Service Delivery: Resources and Equipment**
- * **Service Delivery: Time Parameters**
- * **Service Delivery: Complaints and Investigations**
- * **Personnel Performance**
- * **Patient Care: Treatment**
- * **Patient Care: High Risk Patients**
- * **Patient Care: High Risk Events**



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Service Delivery: Resources and Equipment							
1. Vehicle Failures	All On Duty Occurrences	Monthly	Yes	100%	Number of Vehicle Failures while in Service	EMS Agency	Implement or evaluate Vehicle Maintenance Plan
2. Vehicle Crashes	All On Duty Occurrences	Monthly	Yes	100%	Vehicle Crashes while in Service	EMS Agency	Evaluate and Discuss Crash etiology from vehicle, personnel, patient, and any other perspectives.
3. Patient Care Equipment	All On Duty Occurrences	Monthly	Optional	100%	Number and type of required EMS equipment missing from daily EMS Agency and State Regulatory Inspections	EMS Agency and CIS Inspection Report	Evaluate and establish method to assure all equipment is present on all active EMS units.
4. Patient Care Device Failures	All On Duty Occurrences while in use	Monthly	Yes	100%	Number and type of patient care or medical device failures while in use.	EMS Agency	Establish or monitor plan to assure all active EMS units have properly working equipment.
5. First Responder On Scene %	All 911 events with FR Dispatch	Monthly	Yes	100%	% of events FR on Scene where they were dispatched	EMS Agency and PreMIS Report	Establish target and work for 95% compliance
Service Delivery: Time Parameters							
6. Dispatch Center Time	911 Events	Monthly	Yes	100% of Emergent Dispatches	911 Call time until EMS Notification Time	PreMIS Report	Establish target and work for 95% Compliance
7. Turn-out (Wheels-Rolling Time)	911 Events	Monthly	Yes	100% of Emergent Dispatches	EMS Notification until EMS En Route Time	PreMIS Report	Establish target and work for 95% Compliance



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8. Response Time to Scene	All Events	Monthly	Yes	100% of Dispatches by group: Emergent 911, Non-Emergent 911, Non-Scheduled Medical Transports, and SCTP Transports	EMS En Route Time until Arrival at Scene or Patient Location	PreMIS Report	Establish target and work for 95% Compliance
9. Response Time to Patient	911 Events	Monthly	Optional	100% of Emergent Dispatches	EMS Arrival EMS Arrival On Scene until Arrival at Patient Time	PreMIS Report	Establish target and work for 95% Compliance
10. Scene Time	All Events	Monthly	Yes	100% of Dispatches by group: Emergent 911, Non-Emergent 911, Non-Scheduled Medical Transports, and SCTP Transports	EMS Arrival on Scene until Depart Scene Time	PreMIS Report	Establish target and work for 95% Compliance
11. Transport Time	All Events	Monthly	Yes	100% of Dispatches by group: Emergent 911, Non-Emergent 911, Non-Scheduled Medical Transports, and SCTP Transports	Depart Scene until Arrive at Destination Time	PreMIS Report	Establish target and work for 95% Compliance



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12. Back in Service Time	All Events	Monthly	Yes	100% of Dispatches by group: Emergent 911, Non-Emergent 911, Non-Scheduled Medical Transports, and SCTP Transports	Arrive at Destination until Back in Service Time	PreMIS Report	Establish target and work for 95% Compliance
13. Dispatch Center Delays	911 and SCTP Events	Monthly	Yes	100%	Documented Delays from PCR	PreMIS Report	Identify and address noted trends
14. Response Time Delays	911 and SCTP Events	Monthly	Yes	100%	Documented Delays from PCR	PreMIS Report	Identify and address noted trends
15. Scene Time Delays	911 and SCTP Events	Monthly	Yes	100%	Documented Delays from PCR	PreMIS Report	Identify and address noted trends
16. Transport Time Delays	911 and SCTP Events	Monthly	Yes	100%	Documented Delays from PCR	PreMIS Report	Identify and address noted trends
17. Turn-Around Time Delays	All Events	Monthly	Yes	100%	Documented Delays from PCR	PreMIS Report	Identify and address noted trends
18. Frequency of ED Off-Load Delays	All Events	Monthly	Optional	100%	Not a current PreMIS Data Element. Must be documented locally.	EMS Agency	Identify and address noted trends



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19. First Responder Response Time	911 Events	Monthly	Yes	100% of All Events with First Responder Response	90% Fractile Time of FR Response Time (Dispatch until Arrival on Scene) for all emergent events where FR was dispatched.	EMS Agency Data or PreMIS Report	Establish a target and work for 95% compliance
Service Delivery: Complaints and Investigations							
20. Internal Service Delivery, Personnel, or Patient Care Complaints	All Complaints	Monthly	Yes	100%	Formal written or verbal complaints as defined by EMS Agency	EMS Agency	Evaluate merit and address
21. External Service Delivery, Personnel, or Patient Care Complaints	All Complaints	Monthly	Yes	100%	Formal written or verbal complaints as defined by EMS Agency	EMS Agency	Evaluate merit and address
Personnel Performance							
22. General PCR Documentation	All Events	Monthly	Yes	10% Manual Review by Supervisor and 100% Review using Data Quality Score	Data Quality Score and % Complete by Supervisor Manual Review	EMS Agency and PreMIS Report	Set target and work for 90% compliance
23. Protocol Documentation	All Events	Monthly	Yes	100%	% of PCRs with Documentation of the Protocol Used	PreMIS Report	Set target and work for 100% compliance
24. Vital Sign Documentation	All Events	Monthly	Yes	100%	% of PCRs with the documentation of a minimum of one Systolic BP, Diastolic BP, Pulse, Respiratory Rate, Pain Score (if appropriate), and GCS (if injury).	PreMIS Report	Set target and work for 100% compliance



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25. Skills Performed	All Events	Monthly	Yes	100%	Number of Skills performed by each professional	PreMIS Report	Identify individuals without skill within a 6 month interval and address through training/education
26. Skill Proficiency	All Events	Monthly	Yes	100%	Success Rate using PreMIS Personnel Performance Report for each EMS professional	PreMIS Report	Use PreMIS report to identify and address individuals in need of skill training
27. Protocol Compliance	All 911 and SCTP Events	Monthly	Yes	100%	100% Review by Supervisor and available PreMIS and EMS Toolkit Reports identifying any deviation (missing or additional treatment) by the Primary Caregiver	EMS Agency, PreMIS, and Toolkit Reports	Set Target and work for 95% compliance. Investigate deviations associated with a care issue
28. Patient Contact Numbers (Crew)	All Events	Monthly	Yes	100%	Number of PCR's where EMS personnel are listed as any crew member	PreMIS Report	Identify individuals without EMS patient contact within a 6 month interval and address through training/education
29. Patient Contact Numbers (1° Caregiver)	All Events	Monthly	Yes	100%	Number of PCR's where EMS personnel are listed as the Primary Caregiver	PreMIS Report	Identify individuals not functioning as primary patient caregivers within a 6 month interval and address through training/education
30. PCR's Completed	All Events	Monthly	Yes	100%	Number of PCR's entered by each EMS professional	PreMIS Report	Monitor to assure all staff on roster are involved in patient care documentation and maintain skills
31. Education/CME	All Personnel	Quarterly	Yes	100%	CME hours and licensure status	EMS Agency and CIS Reports	Identify and address any individual not current or on track to maintain credential



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32. EMD Individual Dispatch Times	All 911 Events	Monthly	Yes, if EMD Used	100% of All Dispatches grouped by Emergent and Non-Emergent	911 Call time until Dispatch of EMS Unit for each EMD professional	EMS Agency	Establish target and work for 95% compliance
33. EMD Protocol Compliance	All 911 Events	Monthly	Yes, if EMD Used	Based on Call Volume using Priority Dispatch Review Guideline	EMD Compliance per EMD Vendor Quality Management Recommendation	EMS Agency	Establish target and work for 95% compliance
34. Controlled Substance Counts	All Events with Narcotic Use	Monthly	Yes	100%	% of narcotic uses with sign-out and counts appropriate	EMS Agency	100% of narcotic uses should be accounted for or deviation logged
Patient Care: Treatment							
35. No Protocol Documented	All 911 and SCTP Events	Monthly	Yes	100%	PCR's where no protocol (or only Universal Patient Care Protocol) is listed	PreMIS Report	Set target and work for 95% compliance for protocol documentation
36. No Patient Category Documented	All Events	Monthly	Yes	100%	PCR's with no (E09_11) Chief Complaint, (E09_12) Chief Anatomic Location, (E09_13) Chief Complaint Organ System, (09_13) Primary Symptom, and (E09_15) Provider's Primary Impression Documented	PreMIS Report	Set target and work for 95% compliance for documentation of these required data elements.
37. Medication Complications	All Events	Monthly	Yes	100%	Medication Complications Documented in PCR	PreMIS Report	Discuss and address if preventable care issue.
38. Skill Complications	All Events	Monthly	Yes	100%	Procedure Complications Documented in PCR	PreMIS Report	Discuss and address if preventable care issue.



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39. System Triage and Destination Plan Compliance	All 911 Events	Quarterly	Yes	100%	Triage and Destination based on EMS System Plans for Pediatric, STEMI, Stroke and Trauma	PreMIS Reports and EMS Toolkits	Discuss findings and adjust plan as needed. Work with your RAC.
40. Pain Control	All Events	Monthly	Optional	100%	Pain recorded as VS and addressed with pain medication if pain score is greater than 6 on a scale of 10	PreMIS Report	Set Target and work for 90% compliance
Patient Care: High Risk Patients							
41. Frequent Flyers	All 911 Events	Quarterly	Optional	100%	Patients accessing EMS > 4 times per month?	PreMIS Report	Discuss appropriateness of EMS use from a patient care perspective. If inappropriate identify plan to address
42. Repeat patients within 48 hours	All 911 Events	Monthly	Yes	100%	Patients with repeat EMS use in any 48 hour time period	PreMIS Report	Evaluate patient care event and discuss any EMS care related issue that may have contributed. Develop and implement plan to address any identified issues.



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43. Deaths	All Events	Monthly	Yes	100%	All Deaths will under EMS Care	EMS Agency and PreMIS Reports	Discussion and address identified issues
44. Restraint Use	All Events	Monthly	Yes	100%	All Restraint use	EMS Agency and PreMIS Reports	Review and Discussion of appropriateness and care associated with procedure and event. Address any identified issues or trends.
45. Refusals	All Events	Monthly	Yes	100% review by Supervisor with concerns referred to Committee	All PCR's with patient contact but non-transport	EMS Agency and PreMIS Report	Discussion and address identified issues or trends
46. Cancel by FR	All Events	Monthly	Yes	100%	All Dispatches cancelled by a First Responder with NO EMS Arrival On Scene	EMS Agency and PreMIS Report	Discussion and address identified issues or trends
47. Obstetrical Deliveries	All Events	Monthly	Yes	100%	All Deliveries documented in PCR	PreMIS Report	Discussion and address identified issues or trends
48. Assisted Ventilation or Invasive Airway Use	All Events	Monthly	Yes	100%	All BVM and Invasive Airways documented in PCR and Airway Evaluation Form	PreMIS Report and Airway Form	Review and Discussion of appropriateness and care associated with procedure and event. Address any identified issues or trends.
49. Drug Assisted Intubation	All Events	Monthly	Yes	100%	Documented in PCR and Airway Evaluation Form	PreMIS Report and Airway Form	Review and Discussion of appropriateness and care associated with RSI event. Address any identified issues or trends.



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50.Chest Decompression	All Events	Monthly	Yes	100%	Documented in PCR	PreMIS Report	Review and Discussion of appropriateness and care associated with procedure and event. Address any identified issues or trends.
51.Cardioversion	All Events	Monthly	Yes	100%	Documented in PCR	PreMIS Report	Review and Discussion of appropriateness and care associated with procedure and event. Address any identified issues or trends.
52.Toolkit Results	All 911 Events based on EMS Toolkit Topics	Twice each year	Yes	100% using all 6 EMS Toolkits	Patient Care Evaluation using: -System Response Time -Trauma Care -Cardiac Arrest Care -STEMI Care -Stroke Care -Pediatric Care	EMS Toolkit Reports	Review, Discuss, Identify, and implement 1 intervention per Toolkit use (2 interventions per year)



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53.GCS < 9	All Events	Monthly	Yes	100%	Documented in PCR	PreMIS Report	Review and Discussion of care associated with event. Address any identified issues or trends.
54.Abnormal Vital Signs	All Events	Monthly	Yes	100%	Abnormal Vital Signs in Age > 12 years as defined by: -Systolic BP < 90 -Systolic BP > 200 -Heart Rate < 40 -Heart Rate > 130 -Respiratory Rate < 8 -Respiratory Rate > 28 (Pediatric VS evaluated through the Pediatric Toolkit)	PreMIS Report	Discussion and address identified issues or trends
Patient Care: High Risk Events							
55.Physician on Scene	All 911 Events	Monthly	Yes	100%	EMS Events with a non-EMS Physician on Scene	EMS Agency	Discussion and address identified issues
56.Multi-Patient Event	All Events	Monthly	Yes	100%	EMS Events Documented as multi-patient	PreMIS Report	Discussion and address identified issues
57.Mass Gatherings	All Events	Monthly	Yes	100%	Mass Gatherings within the EMS System	EMS Agency	Discussion and address identified issues post event. Adjust plan
58.Police Custody	All Events	Monthly	Yes	100%	EMS Events with patient under police custody	EMS Agency	Discussion and address identified issues
59.Tactical EMS	All Events	Monthly	Yes	100%	EMS Tactical Activations with Patient Contact	EMS Agency	Discussion and address identified issues
60.Wilderness EMS Rescue	All Events	Monthly	Yes	100%	Wilderness EMS Rescue Patient Contacts	EMS Agency	Discussion and address identified issues