PRE-HOSPITAL CARE RECORD AUDIT

I. PURPOSE

A. To review and evaluate the provision of pre-hospital care as reflected in the Patient Care Records contained in the Marin County Pre-hospital Care Information System.

B. To continually improve the level of awareness of system functioning and the provision of patient care.

C. To facilitate proactive system planning, education and the early resolution of emerging issues.

II. AUTHORITY

A. Health and Safety Code, Title 22, Division 9

B. California Administrative Code, Chapter 4

III. RELATED POLICIES

A. Quality Improvement Provider Agency Responsibilities, #2004

B. Patient Care Record, #2115

C. ALS Treatment Guidelines, #8301 through 8310

IV. POLICY

A. All providers of pre-hospital care shall have Quality Improvement Plans that have been approved by the EMS Office.

B. Provider plans shall include mechanisms for the performance of prospective, concurrent, and retrospective review with appropriate reporting and feedback.

C. Audit of Patient Care Records is one aspect of a Quality Improvement program and shall be guided by the following procedure.

D. Appendices A and B may be amended as requested.
V. PROCEDURE

A. Audit process

1. Each calendar month, the EMS Office shall generate a “General Screening Filter” and “Type Specific Filters”.

2. These filters shall be provider specific, with each primary zone provider receiving audit reports for activity within their zone and each provider for their own activity.

3. Additionally, a system-wide report shall be included in the PMCC agenda packet for information and review by the committee.

4. Following receipt of each report, the provider shall review the report, taking appropriate action according to the individual CQI plan.

5. On a quarterly basis, the provider shall send a written report to the EMS Office summarizing the results of the audits and actions taken, needed, or recommended. A summary will be sent to PMCC members.

6. The PMCC and/or the EMS Office shall recommend or take action as appropriate.

B. Audit types

1. General Screening Filters

   a) This report shall have fixed criteria, agreed upon by consensus of the PMCC.

   b) Reports shall include a list of those records not meeting one of the general screening criterion.

   c) The General Screening filter is found in Appendix A.

2. Specific Filters

   a) Criteria for specific filters shall be developed using the ALS Treatment Guidelines and shall be agreed upon by consensus of the PMCC.
b) In general, specific filters should contain six or fewer criteria.

c) Specific filters are found in Appendix B and a schedule in Appendix C.
Appendix A

General Screening Filter
(Updated 12/2000)

Period of report
Total Number of calls for county
Total Number of records for this provider
Total number of vital signs taken by provider
Total ALS Patients

Screening Criteria (including percentage of whole)-

1. Vital signs are incomplete—missing systolic or diastolic blood pressure, heart rate, or respiratory rate

2. Policy requires that one complete set of vital signs be recorded for each patient. For the purpose of these audits, a complete set of vital signs includes systolic and diastolic blood pressures, heart rate and respiratory rate, recorded one time for each patient. Complete vital signs are required for all patients, including patients below the age of 4 with altered GCS who are not seizure patients.

3. ALS patients missing pre-hospital care—number of ALS patients (one or more ALS procedures were done or medications given) for whom a pre-hospital care impression was not entered.

4. ALS patients with chest pain or CVA, > 20 minutes at scene—patients with “special scene conditions” indicated are excluded from this group.

5. ALS patients with trauma, > 10 minutes at scene—patients with “special scene conditions” indicated are excluded from this group.

6. With patient > 15 minutes, less than 2 sets of vital signs
Appendix B

Specific Filters
(Updated 12/2000)

Abdominal Pain
- No Oxygen given
- No ECG recorded
- SBP < 100, 2 IVs not started
- SBP < 100, no Fluid Challenge done

Acute Pulmonary Edema
- No Oxygen given
- No Nitro given, SBP > 90
- Nitro given, SBP <= 90
- Morphine given without hospital contact
- Furosemide not given
- Dopamine given
- No ECG recorded
- SBP Below 90
- No Peripheral IV

Acute Respiratory Distress - Other
- No Oxygen given
- No Peripheral IV
- Any Medication
- No ECG recorded

Adult Pain Management
- Age 14 or under, no consultation made or attempted
- Patient age 14 or under

Airway Obstruction
- No ECG recorded
- Cricothyrotomy done
- No Oxygen given
- McGill Forceps used to remove a foreign body

Allergic Reaction - Mild
- List all medications given
- No Oxygen given
- No ECG recorded
- No Diphenhydramine (Benadryl) given

Allergic Reactions - Mod/Severe, Anaphylaxis
- Epi given, patient 50 or >, hospital contact not made
- Dopamine given
- No Peripheral IV
- No Diphenhydramine (Benadryl) given
- No Fluid Challenge done, SBP < 90
- No Oxygen given
- No ECG recorded

ALOC/Coma/CVA
- No Oxygen given
- No ECG recorded
- No Peripheral IV
- No Fluid Challenge done, SBP < 90
- No Glucose Determinations made
- Blood Sugar < 70, Dextrose and Glucagon not given
- Naloxone given

Asthma - Mild/Moderate
- No ECG recorded
- No Albuterol administered
- No Oxygen given
<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
<th>Notes</th>
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</thead>
<tbody>
<tr>
<td><strong>Asthma - Severe</strong></td>
<td>No Albuterol administered</td>
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<td></td>
<td>No Oxygen given</td>
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<td></td>
<td>Epinephrine administered</td>
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<td></td>
<td>Oral or Nasal Intubation performed</td>
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<tr>
<td></td>
<td>No IV or Saline Lock initiated</td>
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<td></td>
<td>No ECG recorded</td>
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<td>Epi given, patient 50 or &gt;, hospital contact not made</td>
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<td><strong>Burns</strong></td>
<td>No Oxygen given</td>
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<td></td>
<td>Morphine given</td>
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<td></td>
<td>No Peripheral IV</td>
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<td></td>
<td>Any medication given other than Morphine</td>
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<tr>
<td><strong>Cardiopulmonary Arrest - Asystole</strong></td>
<td>No Atropine administered</td>
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<td></td>
<td>No successful IV or no Oral Intubation</td>
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<td></td>
<td>No Epinephrine administered</td>
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<td></td>
<td>No Peripheral IV</td>
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<td></td>
<td>No successful Intubation</td>
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<td></td>
<td>Neither Oxygen nor CPR given</td>
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<td></td>
<td>No ECG recorded</td>
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<tr>
<td><strong>Cardiopulmonary Arrest - PEA</strong></td>
<td>Neither Oxygen nor CPR given</td>
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<td></td>
<td>No ECG recorded</td>
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<td></td>
<td>No Epinephrine administered</td>
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<td></td>
<td>No IV, IO, nor Intubation and not code 3 to hospital</td>
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<tr>
<td><strong>Cardiopulmonary Arrest - VF/VT</strong></td>
<td>Neither Oxygen nor CPR given</td>
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<td></td>
<td>No Defibrillation performed</td>
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<td></td>
<td>No ECG recorded</td>
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<td></td>
<td>No Epinephrine administered</td>
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<td></td>
<td>No Lidocaine administered</td>
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<td></td>
<td>No successful IV or no Oral Intubation</td>
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<tr>
<td><strong>Chest Pain</strong></td>
<td>No IV or Saline Lock initiated</td>
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<td></td>
<td>No Aspirin administered</td>
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<td></td>
<td>No ECG recorded</td>
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<td></td>
<td>No Morphine or Nitroglycerine administered</td>
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<td></td>
<td>No Oxygen given</td>
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<tr>
<td><strong>Chest Pain, Unlikely to be Cardiac</strong></td>
<td>No IV or Saline Lock initiated</td>
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<td></td>
<td>No Oxygen given</td>
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<td></td>
<td>No ECG recorded</td>
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<tr>
<td><strong>Chronic Obstructive Pulmonary Disease</strong></td>
<td>Atrovent given</td>
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<td></td>
<td>Any medication other than Albuterol or Atrovent</td>
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<tr>
<td></td>
<td>No Albuterol administered</td>
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<td></td>
<td>No IV or Saline Lock initiated</td>
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<td></td>
<td>No ECG recorded</td>
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<td></td>
<td>No Oxygen given</td>
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<td><strong>Croup/Epiglottitis</strong></td>
<td>List all medications given</td>
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<td>List all procedures performed</td>
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<td></td>
<td>No Oxygen given</td>
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<td><strong>Drowning/Near Drowning</strong></td>
<td>No Oxygen given</td>
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<td>No ECG recorded</td>
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<td></td>
<td>No Peripheral IV</td>
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<td></td>
<td>List all medications given</td>
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<tr>
<td><strong>Dysrhythmias - Bradycardia</strong></td>
<td>External Pacing used</td>
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<td></td>
<td>No Oxygen given</td>
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<td></td>
<td>No Atropine administered</td>
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<td></td>
<td>No Peripheral IV</td>
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<td></td>
<td>No ECG recorded</td>
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<tr>
<td><strong>Dysrhythmias - Sust. V.T., pulse present</strong></td>
<td>No Oxygen given</td>
<td></td>
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<td></td>
<td>No ECG recorded</td>
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<td></td>
<td>No Peripheral IV</td>
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<tr>
<td></td>
<td>No Lidocaine administered</td>
<td></td>
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<tr>
<td></td>
<td>No Cardioversion done, SBP &lt; 90 or GCS</td>
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</tbody>
</table>
Dysrhythmias - SVT
No Oxygen given
No ECG recorded
Vagal Maneuver done
No Peripheral IV
No Cardioversion done, SBP < 90 or GCS < 15
List all medications given

Dysrhythmias - Ventricular Ectopy
No Peripheral IV
No Lidocaine administered
No Oxygen given
No ECG recorded
Bretylium (Bretylol) administered

Envenomation
No ECG recorded
No Peripheral IV
List all medications given
List all procedures performed

Gastrointestinal Bleeding
No Oxygen given
SBP < 100 or Pulse > 120, no Fluid Challenge done
No ECG recorded
No Peripheral IV

Heat Illness - Mild
No Peripheral IV

Heat Illness/Hyperthermia
No Peripheral IV
No Fluid Challenge done
No glucose given
Blood Sugar < 70, Dextrose not given
List all medications given

Hypothermia/Frostbite
List all medications given
No ECG recorded
List all procedures performed
No Peripheral IV

Imminent Delivery (normal/with complications)
List all medications given
List all procedures performed
Code 3 Transport to Hospital
No Peripheral IV
No Oxygen given

Neonatal Resuscitation
CPR given
Oral Intubation performed
Intraosseous Infusion or Peripheral IV
Epinephrine administered
No Oxygen given

Non-Traumatic Shock
Two IVs started
Dopamine given
No ECG recorded
No Oxygen given

Pediatric Allergic Reaction
No IV or Saline Lock initiated
No Diphenhydramine (Benadryl) given
No Epinephrine administered
List all medications given except Benadryl or Epi
No ECG recorded

Pediatric Altered Level of Consciousness
No ECG recorded
Naloxone given
Oral Glucose given
Blood Sugar < 60, Dextrose not given
BS < 60, and No IV or IO and Glucagon not given
No Oxygen given
No Peripheral IV or IO initiated
Pediatric Bradycardia
  CPR given
  Epinephrine administered
  Atropine given
  No Peripheral IV or IO initiated
  No Oxygen given
  Oral Intubation performed
  No ECG recorded

Pediatric Burns
  No ECG recorded
  Intraosseous Infusion or Peripheral IV
  List all medications given
  List all procedures performed

Pediatric Cardiac Arrest
  No Oxygen given
  No Peripheral IV or IO initiated
  No Epinephrine administered
  List all medications given except Epi or narcan
  Defibrillation performed
  No ECG recorded
  No CPR given

Pediatric Respiratory Distress
  Epinephrine administered
  Naloxone given
  Albuterol given
  Oral Intubation performed
  No ECG recorded
  No Oxygen given
  List all medications given except Benadryl or Epi

Pediatric Seizure
  No Oxygen given
  No ECG recorded
  Intraosseous Infusion or Peripheral IV
  No glucose given
  IV or IO Established, BS < 60, no Dextrose given
  BS < 60, and No IV or IO and Glucagon
  Diazepam (Valium) given

Pediatric Shock
  List all medications given except Dopamine
  List all procedures performed
  Dopamine given
  No Peripheral IV or IO initiated
  No Oxygen given
  No ECG recorded
  Code 3 Transport to Hospital
  No Fluid Challenge done

Pediatric Tachycardia
  No Oxygen given
  No Peripheral IV or IO initiated
  Adenosine given
  Cardioversion done
  List all medications given except Adenosine
  No Oxygen given

Pediatric Toxic Exposures
  No ECG recorded
  List all procedures performed
  List all medications given except Dopamine
  List all medications given
  No Peripheral IV or IO initiated
  Code 3 Transport to Hospital

Pediatric Trauma
  Fluid Challenge done
  No Oxygen given
  No ECG recorded
  No Peripheral IV or IO initiated
  Code 3 Transport to Hospital

Pneumothorax
  No ECG recorded
  Needle Thoracostomy done
  No IV or Saline Lock initiated
  No Oxygen given
Poisons/Drugs
Atropine given
List all medications given except Charcoal, Atropine, Valium or Benadryl
Diazepam (Valium) given
Activated Charcoal given
IV not established
No ECG recorded
Diphenhydramine given

Respiratory Arrest
IV not established
Naloxone given
No ECG recorded
No Oxygen given

Seizures
No glucose given
IV not established
Blood Sugar < 70, Dextrose not given
Diazepam (Valium) given
Naloxone given
No ECG recorded
No Oxygen given

Severe Pre-Eclampsia/Eclampsia
List all medications given
IV not established

Syncope/Near Syncope
List all medications given
SBP < 90, Pulse > 120, no Fluid Challenge done
No ECG recorded
No IV or Saline Lock initiated

Toxic Gas Inhalation
IV not established
Albuterol given
No ECG recorded
No Oxygen given

Traumatic Injury
IV not established
SBP < 100, 2 IVs not started
SBP < 100, no Fluid Challenge done
MAST inflated
No Oxygen given

Vaginal Hemorrhage with/without shock
No Oxygen given
No ECG recorded
IV not established
Two IVs started
Fluid Challenge done
Oxytocin given

Poisons/Drugs
Atropine given
List all medications given except Charcoal, Atropine, Valium or Benadryl
Diazepam (Valium) given
Activated Charcoal given
IV not established
No ECG recorded
Diphenhydramine given

Respiratory Arrest
IV not established
Naloxone given
No ECG recorded
No Oxygen given

Seizures
No glucose given
IV not established
Blood Sugar < 70, Dextrose not given
Diazepam (Valium) given
Naloxone given
No ECG recorded
No Oxygen given

Severe Pre-Eclampsia/Eclampsia
List all medications given
IV not established

Syncope/Near Syncope
List all medications given
SBP < 90, Pulse > 120, no Fluid Challenge done
No ECG recorded
No IV or Saline Lock initiated

Toxic Gas Inhalation
IV not established
Albuterol given
No ECG recorded
No Oxygen given

Severe Pre-Eclampsia/Eclampsia
List all medications given
IV not established
Syncope/Near Syncope
- List all medications given
- SBP < 90, Pulse > 120, no Fluid
- Challenge done
- No ECG recorded
- No IV or Saline Lock initiated

Toxic Gas Inhalation
- IV not established
- Albuterol given
- No ECG recorded
- No Oxygen given

Traumatic Injury
- IV not established
- SBP < 100, 2 IVs not started
- SBP < 100, no Fluid Challenge done
- MAST inflated
- No Oxygen given

Vaginal Hemorrhage with/without shock
- No Oxygen given
- No ECG recorded
- IV not established
- Two IVs started
- Fluid Challenge done
- Oxytocin given