1. INTRODUCTION:

The Advanced Life Support Drug Box of the Old Dominion EMS Alliance (ODEMSA) is a critical component of the Central Virginia emergency medical services (EMS) system for the treatment of sick or injured persons. The basis of restocking these ALS Drug Boxes, also known as Cardiac Drug Boxes, is contained in the Ambulance/ALS Drug Box Regional Restocking Agreement and Policies signed by participating acute care hospitals and out-of-hospital agencies. That agreement and the Restocking Policy are annexes of this document.

2. PURPOSE AND SCOPE:

The purpose of this document is to delineate the policies and procedures for the management of ODEMSA’s ALS Drug Box system, to establish mechanisms of control and accountability, and to establish a means of orienting new Advanced Life Support (ALS) providers and Operational Medical Directors (OMDs) in the ODEMSA region.

The ODEMSA Drug Box system reflects systems in use in other Regional EMS Councils in Virginia. It is meant to coincide with, and work within, rules and regulations promulgated by the Virginia Board of Pharmacy and the Virginia Department of Health’s Office of EMS. It operates in coordination with provisions of the Ambulance/ALS Drug Box Regional Restocking Agreement and Policies which have been approved by all 16 acute care hospitals and all eligible out-of-hospitals EMS agencies in the ODEMSA region, and which are appended to this document.

All 16 acute care hospitals in the ODEMSA region are signatories to the Regional Restocking Agreement and Policies. Only those licensed EMS agencies within Planning Districts 13, 14, 15 and 19 that have signed that agreement and policies are entitled to participate in the ALS Drug Box Exchange and, therefore, come under these Policies and Procedures. A dated list of signatories is attached to this document.

3. OVERSIGHT AND OWNERSHIP:

Oversight of the ALS Drug Box Policies and Procedures will rest with the Pharmacy Committee, a standing committee of ODEMSA, and the ODEMSA Board of Directors through the ODEMSA staff. The Pharmacy Committee, representing hospital and prehospital components, will be nominated by those components and appointed by the ODEMSA Board. The Pharmacy Committee will meet regularly and have separate Policies and Procedures. The medications contained in the ALS Drug Box are the property of the hospitals’ pharmacies and are controlled by state regulations. Boxes are the property of ODEMSA.

Serving the residents, EMS Agencies and Hospitals in Planning District 13, 14, 15 and 19
4. POLICY GOALS:

The goals and objectives of these policies and procedures are:

A. To provide a safe and effective method for the distribution of medications by prehospital EMS providers in cooperation with hospital pharmacies.

B. To enhance communications and cooperation between hospital pharmacies and emergency department staffs and prehospital EMS providers.

C. To maintain a system that allows a safe, rapid, effective and accountable exchange of used Cardiac Drug Boxes for restocked Cardiac Drug Boxes on a one-for-one basis.

D. To maintain a system of evaluation and education so that the Central Virginia EMS system is consistent with current local, state and national standards of care and protocols, and in compliance with state and federal regulations.

5. THE SYSTEM AND BOX DESCRIBED:

The ODEMSA Cardiac Drug Box system involves a one-for-one exchange between acute care hospitals in the ODEMSA region and ALS agencies licensed by the Virginia Health Department and is provided for in the Regional Restocking Agreement and Policies.

The Drug Box contains medications designated by physicians for the treatment of emergent patients under the ODEMSA Prehospital Patient Care Protocols as most recently revised. The list of contents -- the ALS Drug Box Contents of the ODEMSA Prehospital Patient Care Protocols -- is determined by the Old Dominion Medical Control Committee in coordination with hospital pharmacy Directors through the ODEMSA Pharmacy Committee.

The ALS Drug Box is carried on licensed ALS emergency vehicles as outlined in the Rules and Regulations of the Board of Health Governing EMS and consistent with the regulations and requirements of the Virginia Board of Pharmacy.

The standardized Drug Box approved by the Medical Control Committee for use in this region is a Flambeau PM1872 case, orange in color. It is marked "CARDIAC" in bold letters on the top, lower left corner. It carries the letters "ODEMSA" in the upper left corner. An individual number is located on top and on at least three sides of the lid. The Drug Boxes also contain a clear plastic sleeve on the top, at right, which contains a yellow Control/Report Form and at least one standardized ODEMSA Discrepancy Form. Each box when filled is locked with a numbered seal with the letters "ODEMSA" engraved.

PLEASE NOTE: While ALS Drug Boxes are the property of ODEMSA, the contents of the boxes are owned by participating hospital pharmacies in the region.

Unless otherwise specified, medication expirations dates will be based on the final day of the month indicated.

Medications are dispensed in the field by certified prehospital ALS providers under the license of the ALS agency's OMD according to the ODEMSA Prehospital Patient Care Protocols and/or under the direction of on-line medical control.
Used ALS Drug Boxes will be exchanged only with the appropriate forms containing patient information and with authorized signatures. Exchanges will be in compliance with the Ambulance/ALS Drug Box Restocking Agreement and Ambulance Restocking Policies as signed by hospitals and EMS agencies (effective Jan. 1, 2000).

6. **DRUG BOX ACQUISITION:**

   Only EMS agencies licensed at the Advanced Life Support level and which have signed the regional Ambulance/ALS Drug Box Regional Restocking Agreement or, in the case of for-profit agencies, have a separate agreement of compliance with ODEMSA will be qualified to apply for and receive a new ALS Drug Box from ODEMSA.

   Applications for a Drug Box will consist of a request letter from the EMS agency signed by the agency’s president or chief officer and the agency’s Operational Medical Director. The letter will briefly state the reason for acquiring the Drug Box.

   Agencies will be responsible for paying a set-up fee charged by ODEMSA to prepare a Box for service, and for paying any fee imposed to replace a damaged or destroyed Box.

   It is the responsibility of the applying agency to make arrangements with a pharmacy to have the Drug Box filled in accordance with the ALS Drug Box Contents of ODEMSA’s Prehospital Patient Care Protocols, which is attached to this document.

   Only boxes meeting ODEMSA’s standards, as described above and endorsed by the Pharmacy Committee, will be filled by the hospital Pharmacy and used by out-of-hospital agencies and providers.

   The Pharmacy Committee will review all requests at its regular meetings.

7. **DRUG BOX RETURNS:**

   In the event that a licensed EMS agency loses its ALS license, ceases operations or moves outside the ODEMSA region, the agency will notify ODEMSA in writing within 30 days. It then will return any and all ALS Drug Boxes that were in its possession to the hospital Pharmacy that last restocked the box(es).

   The Pharmacy will confirm to ODEMSA in writing that the Drug Box(es) has (have) been returned. When so notified, ODEMSA then will issue to the agency a receipt for the box(es).

   The receiving pharmacy will add the Drug Box(es) to its reserves and place it (them) back into general circulation within the Restocking program.

8. **DRUG BOX ACCOUNTABILITY:**

   ALS Drug Boxes are filled by hospital Pharmacies and sealed until used by an out-of-hospital provider. The Pharmacy is responsible for the filled box until it is exchanged with a prehospital ALS provider for a used box.

   The prehospital EMS agency is responsible for the storage and security of the box outside the hospital, including and after it has been opened in the field by an ALS provider. Once the box is opened, the ALS provider is responsible for the contents of the box and its condition until it is returned and accepted for exchange at an appropriate hospital.

   Only clean boxes that are safe to handle will be accepted for exchange.
The seal used for ALS Drug Boxes is supplied to the hospital pharmacies by ODEMSA and is a standardized type that can provide security for the contents. Seals are individually numbered and marked with the letters "ODEMSA" to signify the Old Dominion EMS Alliance. When ODEMSA seals are not available, a pharmacy may use a hospital seal that it deems as appropriate for the purpose until such time as the ODEMSA seals are available.

The means of accounting for the ALS Drug Box contents is the Commonwealth of Virginia Prehospital Patient Care Report (PPCR) as most recently revised or its equivalent as approved by the Virginia Office of EMS. All medications administered to patients must be recorded on the PPCR, which is a legal document and a medical record.

ALS Drug Boxes will be exchanged only when accompanied by appropriate signed documentation including patient information. All exchanges will be in compliance with the provisions of the Ambulance/ALS Drug Box Restocking Agreement and Ambulance Restocking Policy signed by participating hospitals and out-of-hospital EMS agencies.

Information and documentation should include: IV procedures, a recording of the used Drug Box and the new Drug Box issued for each call, the Medical Control physician's signature when controlled drugs are ordered, and the signature of a pharmacist or other licensed professional to indicate that all controlled drugs have been accounted for by EMS personnel and the receiving hospital. The drug section of the PPCR is used to document the administration of drugs specified in local protocols, including dose, route and times.

The following procedure is to be followed insofar as it does not otherwise conflict with established policies and procedures of the receiving hospital's Pharmacy Department or Virginia Board of Pharmacy regulations:

A. The ALS provider, using the PPCR, is responsible for accounting for all medications in the Box, including narcotics, whether or not they were used.

B. The ALS provider will count narcotics in the Drug Box in the presence of a licensed professional (i.e. pharmacist, nurse, physician).

C. If narcotics have been used, any remaining narcotic should be wasted in the hospital emergency department in the presence of a licensed professional in conformance with State Board of Pharmacy regulations.

D. The amount of narcotic administered and the amount (if any) wasted should be recorded by the licensed professional and recorded in an appropriate location on the PPCR.

E. Instances when there has been a significant discrepancy in accounting for medications – e.g. involving two or more Drug Boxes or involving Schedule 2 or 4 medications (morphine or valium) -- will be reported as soon as possible to ODEMSA. ODEMSA, in turn, will promptly notify the Virginia Board of Pharmacy, the Virginia Office of EMS, the last-filling hospital and, if appropriate, local and/or state law enforcement officials.

F. ODEMSA will ensure that all Discrepancy Reports it receives are audited not less than every six months and that a written report is made available to the Pharmacy Committee.
9. HOSPITAL PHARMACY RESPONSIBILITIES:

Each participating hospital Pharmacy in the ODEMSA region agrees to the following:

A. To purchase, store, control and dispense all pharmaceuticals and related paraphernalia contained in the ALS Drug Boxes and in quantity sufficient to meet the needs of the Drug Box Program.

B. To ensure that all drug and paraphernalia contained or replaced in the Drug Boxes are generically equivalent to those approved by the Medical Control Committee.

C. To ensure in-hospital compliance with all Virginia Board of Pharmacy rules and regulations regarding prehospital Drug Boxes.

D. To ensure that only a Pharmacist, or authorized personnel under the direction of a Pharmacist, restocks or exchanges the ALS Drug Boxes.

E. To ensure that all packaging of medication and paraphernalia is identical to that approved.

F. To ensure that all pharmaceuticals and paraphernalia are within expirations dates, that the earliest expiration date is beyond three months as practical, and that the yellow Control/Report Form has been filled out.

G. To ensure that a sufficient quantity of ALS Drug Boxes are available for exchange on a 24-hour basis.

H. To ensure that each Drug Box is restocked according to the ALS Drug Box Contents list, as most recently revised, and that each box contains a copy of that list as supplied to the Hospital Pharmacy by ODEMSA.

I. To ensure that any discrepancy has been reported on an ODEMSA Drug Box Discrepancy Form and forwarded to ODEMSA in a timely manner.

J. To ensure that all ALS Drug Boxes have been locked with an appropriate security seal.

K. To ensure that when a system-wide shortage of a medication occurs, or when ALS Drug Boxes have short dated drugs, the ALS Drug Boxes’ exteriors will be so-marked.

10. PREHOSPITAL AGENCY/PROVIDER RESPONSIBILITIES:

Each participating licensed prehospital agency and/or Provider in the ODEMSA region agrees to the following:

A. When acquiring a new ALS Drug Box, to make prior appropriate arrangements with a hospital pharmacy to have the box filled in accordance with the ALS Drug Box Contents of ODEMSA’s Prehospital Patient Care Protocols.

B. To store ALS Drug Boxes in licensed ALS vehicles according to the rules and regulations of the Virginian Board of Health and the Virginia Board of Pharmacy.

C. To otherwise comply with all Virginia Board of Pharmacy rules and regulations regarding Drug Boxes.
D. When more than one ALS Drug Box is carried on a vehicle, to rotate the boxes in use to minimize long-term drug expiration.

E. To allow only Virginia certified ALS providers or licensed medical personnel to handle or administer medications contained in Drug Boxes. Certified ALS providers include: EMT-Enhanced/EMT-Shock Trauma; EMT-Cardiac/EMT-Intermediate; and EMT-Paramedic. Licensed medical personnel include hospital pharmacists, registered nurses and physicians.

F. To ensure that ALS providers, at the beginning of a duty shift, will check Drug Boxes in the possession of their respective agencies for the security seal and for drug expiration dates.

G. To ensure that any Drug Box with a broken seal or expired medications is reported to the appropriate EMS officer, as designated by the agency, and taken to a participating Hospital Pharmacy to be inspected and, if appropriate, re-sealed or restocked.

H. To ensure that the administering ALS provider fills out and files a PPCR when the contents of a Drug Box are used during an emergency call.

I. To ensure that the ALS Drug Box used on a call is cleaned and free of any dirt, blood or other fluids or biohazards, and is otherwise safe to handle before it is returned to the Hospital Pharmacy for replacement.

J. To ensure that the ALS provider disposes on appropriate containers all trash, including paraphernalia, from the use of the Drug Box during a call.

K. To participate from time to time as needed in an inventory report to ODEMSA of Drug Boxes in the agency’s possession

11. O.D.E.M.S.A.’S RESPONSIBILITES:

The Old Dominion EMS Alliance agrees to the following:

A. To properly prepare and mark ALS Drug Boxes for entry into the system.

B. To maintain, repair or replace Drug Boxes in a timely fashion as needed and requested by hospital pharmacies.

C. To provide locks, forms and other documentation as needed and requested by hospital pharmacies.

D. To forward Discrepancy Forms to the last-filling hospital in a timely manner after such reports are filed by hospitals or individuals.

E. To coordinate the reporting process when there has been a significant discrepancy – as defined by the Committee – in accounting for drugs, e.g. involving two or more Boxes or Schedule 2 or 4 drugs (See Section 8-E).

F. To ensure that drug audits and drug box inventory results and other appropriate reports are available to the Pharmacy Committee.

G. To respond to complaints or problems from hospital or out-of-hospital and provide needed immediate assistance to mitigate until such time as the Committee can take appropriate action.
H. To coordinate between the Pharmacy Committee and other standing committees -- i.e., Medical Control or Manpower and Training -- as to proposed changes in the ALS Drug Box Contents.

I. To staff meetings of the Pharmacy Committee and ensure that meeting notices and meeting minutes are distributed in a timely fashion.

11. COMPLIANCE AND MODIFICATION:

Compliance with these policies will be monitored by ODEMSA and reported regularly to the ODEMSA Pharmacy Committee, a standing committee of ODEMSA. That Committee will decide on monitoring policies and on appropriate corrective action in the event of non-compliance.

The Pharmacy Committee will review recommended revisions and updates to these ALS Drug Box Policies and Procedures. Recommendations approved by the Pharmacy Committee will be forwarded to the Medical Control Committee or other appropriate Committee for endorsement, and ultimately to the ODEMSA Board of Directors for its action.

Approved by ODEMSA Pharmacy Committee 03-04-02
Approved by Old Dominion Medical Control Committee 03-20-02
Reviewed by Virginia Board of Pharmacy 03-20-02
Approved by ODEMSA Board of Directors 03-21-02

####
## Prehospital Patient Care Protocols
### ALS Drug Box Contents

**Effective Date:** January 1, 2003

<table>
<thead>
<tr>
<th>Medications (A)</th>
<th>Concentration</th>
<th>Amount Per Container</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adenosine (Adenocard)</td>
<td>3 mg/1 ml</td>
<td>6 mg</td>
<td>3</td>
</tr>
<tr>
<td>Albuterol 0.083% (neb)</td>
<td>2.5 mg</td>
<td>3 ml</td>
<td>4</td>
</tr>
<tr>
<td>Amiodarone</td>
<td>50 mg/ml</td>
<td>150 mg</td>
<td>3</td>
</tr>
<tr>
<td>Atropine Sulfate</td>
<td>0.1 mg/ml</td>
<td>1 mg</td>
<td>4</td>
</tr>
<tr>
<td>Ipratropium 0.02%(Atrovent) (neb)</td>
<td>0.5 mg/2.5 ml</td>
<td>0.5 mg</td>
<td>4</td>
</tr>
<tr>
<td>Bumetanide (Bumex) (B)</td>
<td>0.25 mg/ml</td>
<td>10 ml</td>
<td>1</td>
</tr>
<tr>
<td>Calcium Chloride</td>
<td>100 mg/ml</td>
<td>1 gm</td>
<td>1</td>
</tr>
<tr>
<td>D25w</td>
<td>250 mg/ml</td>
<td>2.5 gm</td>
<td>2</td>
</tr>
<tr>
<td>D50w</td>
<td>500 mg/ml</td>
<td>25 gm</td>
<td>2</td>
</tr>
<tr>
<td>Diazepam (Valium)</td>
<td>5 mg/ml</td>
<td>10 mg</td>
<td>1</td>
</tr>
<tr>
<td>Diltiazem (Cardizem Lyo-Ject)</td>
<td>5 mg/ml</td>
<td>25 mg</td>
<td>1</td>
</tr>
<tr>
<td>Diphenhydramine (Benadryl)</td>
<td>50 mg/ml</td>
<td>50 mg</td>
<td>1</td>
</tr>
<tr>
<td>Dopamine (Intropin)</td>
<td>40 mg/ml</td>
<td>200 mg</td>
<td>2</td>
</tr>
<tr>
<td>Epinephrine 1:1,000</td>
<td>1 mg/ml</td>
<td>1 mg</td>
<td>2</td>
</tr>
<tr>
<td>Epinephrine 1:1,000</td>
<td>1 mg/ml</td>
<td>30 mg</td>
<td>1</td>
</tr>
<tr>
<td>Epinephrine 1:10,000</td>
<td>1 mg/10 ml</td>
<td>1 mg</td>
<td>10</td>
</tr>
<tr>
<td>Furosemide (Lasix)</td>
<td>10 mg/ml</td>
<td>100 mg</td>
<td>2</td>
</tr>
<tr>
<td>Glucagon</td>
<td>1 mg/ml</td>
<td>1 mg</td>
<td>1</td>
</tr>
<tr>
<td>Lorazepam (Ativan) (C) (60 Day Exp.)</td>
<td>2 mg/ml</td>
<td>1 ml</td>
<td>2</td>
</tr>
<tr>
<td>Magnesium Sulfate</td>
<td>500 mg/ml</td>
<td>1 gm</td>
<td>2</td>
</tr>
<tr>
<td>Morphine Sulfate with Holder</td>
<td>10 mg/ml</td>
<td>10 mg</td>
<td>1</td>
</tr>
<tr>
<td>Naloxone (Narcan)</td>
<td>2 mg/2ml</td>
<td>2 mg</td>
<td>2</td>
</tr>
<tr>
<td>Nitroglycerin sl tablets</td>
<td>0.4 mg tab</td>
<td>25 tablets</td>
<td>1</td>
</tr>
<tr>
<td>Nitropaste (D)</td>
<td>2%</td>
<td>60 gm</td>
<td>1</td>
</tr>
<tr>
<td>Procainamide</td>
<td>100 mg/ml</td>
<td>1 gm</td>
<td>1</td>
</tr>
<tr>
<td>Sodium Bicarbonate</td>
<td>1 mEq/ml</td>
<td>50 mEq</td>
<td>1</td>
</tr>
</tbody>
</table>

(A) Expiration dates are the final day of the month.
(B) Stocked only when Lasix is not available.
(C) Stocked only when Valium is not available.
(D) If Nitropaste is in unit dose, quantity will be 2.

### I.V. Fluids

<table>
<thead>
<tr>
<th>Fluids</th>
<th>Concentration</th>
<th>Amount</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lidocaine Drip 4:1</td>
<td>4 mg/ml</td>
<td>500 ml (2gm)</td>
<td>1</td>
</tr>
<tr>
<td>Normal Saline</td>
<td></td>
<td>50 ml</td>
<td>1</td>
</tr>
</tbody>
</table>

### Accessories

<table>
<thead>
<tr>
<th>Accessory</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carpuject (Winthrop) Tubex Holder</td>
<td>1</td>
</tr>
<tr>
<td>Plastic Trash Container (12&quot; X 16&quot;)</td>
<td>1</td>
</tr>
</tbody>
</table>

*Serving the Residents, EMS Agencies and Hospitals in Planning Districts 13, 14, 15 and 19*