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OPERATIONAL BULLETIN

Bulletin #	Title		Date Issued
#2022-02-09-01	Pediatric AED/Defib Pad Incompatibility		February 9, 2022
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N/A	Maine EMS	Maine EMS, NASEMSO	2
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Situation:

Maine EMS was notified through the Massachusetts Office of EMS and the National Association of State EMS Officials (NASEMSO) Pediatric Emergency Care (PEC) Council of several issues regarding automatic external defibrillator (AED) pad incompatibility. This is essentially problems with multi-function defibrillator and AED pads not being used in accordance with manufacturer’s recommendations. This was discovered particularly in pediatric applications.

Background:

In recent ambulance and EMS equipment inspections, it was identified that some EMS services and/or their personnel are utilizing incorrect pediatric defibrillator pads with various manual monitor/defibrillators and AEDs. This results in the inability to deliver therapy across all age and weight ranges. On November 29, 2021, the Massachusetts Office of EMS issued a statewide memorandum regarding this issue and shared it with the NASEMSO PEC Council. Subsequently, this has been found to be occurring in several other states as well.

Assessment:

Examples include:

- **Zoll Pedi-padz:** These defibrillator pads, although manufactured by Zoll, are not compatible with the Zoll AED Plus units and will not plug into the unit.
 - The pediatric pads required for the Zoll AED Plus units are the Pedi-padz II.
 - The Zoll AED Plus Administrators Guide, page 30, states to
 - Use “ZOLL Stat-padz II, CPR-D-padz, or Pedi-padz II”, and
 - To use “Only use electrodes labeled “Infant/Child” on children less than 8 years old or weighing less than 55 lbs. (25 kg).
 - To use CPR-D-padz if patient is older than 8 years or weighs more than 55 lbs. (25 kg).”

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- **Physio-Control Lifepak-15:** Use of non-manufacturer recommended pads for LP-15 units, with the intent of using them for pediatric patients.
 - These pads have therapy limitations for both age and weight ranges for infants and children in both the manual and AED mode on the LP-15.
 - The pads’ packaging states that in manual defibrillator mode, these pads cannot be used for patients weighing under 22 pounds, and *in AED mode, are not to be used for patients under age 8.*
 - As a reminder, providers *cannot use an LP15 in the AED mode for pediatrics*, regardless of pad type.
 - The LP15 operator’s manual, in section 5 pages 5-7, under “Automated External Defibrillation (AED)” states, “In AED mode, the LIFEPAK 15 monitor/defibrillator is not intended for use on pediatric patients less than 8 years old.”
- **General:** Some AEDs have been identified that were stocked with pediatric pads with packaging that had red writing and a circle with a line through it, around an AED symbol, that stated “not for AED use.”

Recommendation:

Although pediatric defibrillation is an uncommon event, ensuring that properly compatible equipment is available is one of the keys to this life-saving intervention. We are recommending that all EMS, Fire, and other public safety agencies double-check all monitors and AED units to ensure they have the correct manufacturer recommended pads stocked in all units. For questions, please refer to the manufacturer instructions for the device, contact the manufacturer, and/or contact state or regional EMS leadership.

References

1. Lifepak-15 Operators Manual
https://www.physiocontrol.com/uploadedFiles/Physio85/Contents/Emergency_Medical_Care/Products/Operating_Instructions/LIFEPAK15_OperatingInstructions_3306222-002.pdf
2. Zoll AED Plus Administrator’s Guide
https://www.zoll.com/-/media/product-manuals/aed-plus/01-english/9650-0301-01-sf_yd.ashx
3. Massachusetts Office of EMS Memorandum
https://www.emesc.org/images/Announcements/Memorandum_Ensuring_Defibrillator_Pad_Compatibility_to_Provide_Effectivepdf.pdf

If you have any additional questions, comments, or concerns, please don’t hesitate to reach out to the EMS office at maine.ems@maine.gov or (207) 626-3860.