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MAINE EMERGENCY MEDICAL SERVICES
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Request for QI Study by Maine EMS for Children Program

Marc Minkler, EMSC Program Manager

January 8, 2025

Members of the Maine EMS Board, Maine EMS Medical Direction and Practices Board, and Maine EMS Director Wil O'Neal

In November of 2023, the Maine EMS for Children and the Maine Department of Health and Human Services (DHHS) through the Maine CDC Maternal and Child Health Program State Maternal Health Innovation Grant collaboratively invested over \$100,000 in the purchase of Ferno KangooFix transport devices. A device was purchased for every Maine EMS licensed and Maine based ground transport agency. Additionally, education was developed by the EMSC program and posted on MEMSEd and made freely available to all EMS clinicians.

As of Nov 27, 2024, over 1,750 EMS clinicians had completed education on the devices. This investment was made to help ensure safer transport, reduced transport costs, clinical benefits of bonding, warmth, and reduced stress for newborns. The 2023 Maine EMS Prehospital Treatment Protocols state on Pink 11 and 12 to use a transport device for specified pediatric patients, as well as mother and newborn transport, and this program helps EMS agencies to achieve this protocol requirement. These devices were shipped to agencies and first began to be available on March 1, 2024.

Maine EMS-C, Maine DHHS, and our grant funding source of the Health Resources and Services Administration (HRSA), are interested in learning how these new devices have impacted care provided by EMS clinicians throughout the state of Maine. We are requesting approval of a QI program to survey, analyze, and report on the use and experience of EMS clinicians transporting patients under the age of 29 days (neonates, as defined by Maine EMS Prehospital Treatment Protocols on Purple 5).

Eligible patients will be identified through existing reports sent to the Maine EMS for Children Program Manager. The criteria to be included are:

- Patient less than 29 days of age.
- Transport via a ground ambulance.
- Date range of March 1, 2024, through August 30, 2025 (18 months).

Once an eligible patient is identified by the Maine EMSC Program Manager, an introduction and survey link will be placed into the specific MEFIRS patient care report (PCR) as a QI note and sent to all clinicians listed on the PCR(s) for that patient. One caveat is that some EMS clinicians have documented both mother and newborn on the same PCR, so the PCR may also include the mother's PCR for field deliveries. For the purposes of this survey, at no time will any personally identifiable information (PHI) or HIPAA information be shared outside of the clinicians on the call (via the

MEFIRS system) and the Maine EMS for Children Program Manager (via current MEFIRS reports) or Maine EMS staff allowed by job role (e.g., technical issues with data manager or clinical questions with pediatric EMSC medical director).

The results of the survey will be reported to stakeholders and partners to better understand use of transport devices during emergency, non-emergency and interfacility transports of patients under 29 days of age. Providing this information can help identify gaps in usage, and opportunities for educational development to improve safe transport of neonates.

Process

1. The time frame will include retrospective data collection from March 1, 2024, and ongoing collection through August 30, 2025
2. Weekly report received by Maine EMS-C Program Manager (automated in MEFIRS)
3. Patients older than 28 days filtered out
4. Patients transported by air filtered out
5. Patients not transported filtered out
6. EMSC Program Manager posts QI note to all clinicians listed in PCR with survey introduction language and link to survey.
7. Survey hosted on Maine State Microsoft forms platform. No PHI or HIPAA information is collected. Survey results sent to Maine EMSC Program Manager.
8. Survey information is aggregated and reviewed by EMSC Program Manager and Liz Winterbauer (Evaluator for the State Maternal Health Innovation Grant, see below for brief bio). Any potentially identifying information will be deleted prior to analysis outside of Maine EMS office staff/medical directors.
9. Final report on findings developed and shared after August 30, 2025.

Background on Liz Winterbauer

Liz Winterbauer is an evaluator for the State Maternal Health Innovation Grant. She is helping the State and its federal funder, the Health Resources and Services Administration (HRSA), understand how Maine EMS Agencies use the KangooFixes, and their impact on EMS clinical care. The goal of the evaluation is to better support EMS agencies in Maine and across the United States.

Liz Winterbauer consults for the Maine Medical Association Center for Quality Improvement where she provides evaluation support for perinatal quality improvement work in Maine. Liz also holds a part-time faculty position at the University of Vermont, teaching classes in public health and epidemiology. Her background is in epidemiology, health services research, quality improvement, and evaluation. Most recently, Liz led a national qualitative study of off-site COVID-19 testing centers that identified promising approaches to testing vulnerable populations. Prior to that, she managed quality improvement programs for New England based non-profit healthcare quality improvement organizations and conducted chronic disease surveillance for the Vermont and New Hampshire Health Departments.

Survey Introduction (via MEFIRS QI note)

The Maine EMS for Children is conducting a quality improvement survey across the State of Maine. This survey has been reviewed and approved by the Maine EMS office, the Maine Board of EMS, and the EMS Medical Direction and Practices Board (MDPB).

We are surveying EMS clinicians who transported an infant less than 29 days old, either as a 911 call or an interfacility transport. Our questions center around whether you used a neonatal restraint device, and if so, your experience with the device.

- We will ask you to complete a new survey for each patient transport.
- Each EMS clinician on the patient care report will be asked to fill out this survey as we're interested in diverse perspectives and experiences.
- Your responses will identify how the State can better support EMS Agencies.
- Your responses are anonymous, unless you decide to include your name at the end of the survey.

To access the survey, please click the following link: [LINK HERE] Please note, participating in QI activities is mandatory per Maine EMS rules. We will not ask any protected health information (PHI) about the patient through the survey. The information provided is protected under QI rules and is intended to learn and improve and is not used for any other purpose. Results will be sent to Marc Minkler, Maine EMS for Children Program Manager.

Survey Questions (via State of Maine Microsoft Form Survey)

1. What EMS Agency did you respond with on this call? *[Drop down list]*
2. What was the date of the incident? *[Month, day, year drop down lists]*
3. What is your license level?
 - o EMR
 - o EMT
 - o AEMT
 - o Paramedic
 - o Other: [free text]
4. How long have you been licensed (at any level) in EMS (including Maine and elsewhere)?
 - o Less than 1 year
 - o 1-5 years
 - o 6-10 years
 - o 11 or more years
5. Did you transport
 - o Emergency (lights and siren)
 - o Non-Emergency
6. Was the mother also transported as a patient?
 - o Yes
 - o No
7. Have you ever delivered a child as an EMS clinician before?
 - o Yes
 - o No
8. Which neonatal restraint device did you use on this incident?
 - o We used the stretcher only or did NOT use a neonatal restraint device → SKIP to q9.
 - o Patient's own car seat → SKIP to q10.
 - o Isolette → SKIP to q10.
 - o KangooFix → SKIP to q10.
 - o Neo-Mate → SKIP to q10.
 - o Pedi-Mate → SKIP to q10.
 - o ACR → SKIP to q10.
 - o Other [free text] → SKIP to q10.
9. Why did you NOT use a neonatal restraint device in this situation? *[free text]* → SKIP to q15.

10. Why did you choose this particular neonatal restraint device in this situation? *[free text]*
11. How was your experience using it? (What worked well, what was challenging?) *[free text]*
12. Please describe how the neonatal restraint device positively or negatively impacted clinical care. (For example, were you able or unable to do an intervention or assessment because of your use of this device?) *[free text]*
13. What recommendations do you have for other EMS clinicians that may use this neonatal device? *[free text]*
14. If you had not had a neonatal restraint device during this instance, can you describe what you would have done instead? *[free text]*
15. Will you do anything differently next time you transport an infant in a similar situation? *[free text]*
16. Were any of the following clinicians on the scene?
 - No other clinicians were present **SKIP to q20**
 - Midwife
 - Nurse
 - Physician
 - Other clinician:
 - I don't know **SKIP to q20**
17. Did this clinician give you a handoff report?
 - Yes
 - No
 - I don't know **SKIP to q 19**
18. Was the handoff report useful?
 - Yes. Please explain why *[free text]*
 - No. Please explain why *[free text]*
 - I don't know
19. Did this clinician go with you in the ambulance for the transport?
 - Yes
 - No
 - I don't know
20. Did you take the MEMSEd class on using the KangooFix?
 - Yes
 - No
 - I don't know
21. Did you do a practical training on the KangooFix?
 - Yes
 - No
 - I don't know
22. Have you taken a Basic Life Support in Obstetrics (BLSO) class?
 - Yes
 - No
 - I don't know
23. (Optional) Please provide your name and email address if we have any follow-up questions. *[first name, last name, email address free text]*

Thank you so much!

For any questions, please email the EMSC program at Marc.A.Minkler@maine.gov