



GUIDELINE

Digital Stethoscope Recording

Scope (Staff):	Nursing and Medical Staff
Scope (Area):	NICU KEMH, NICU PCH, NETS WA, Postnatal Wards

Child Safe Organisation Statement of Commitment

CAHS commits to being a child safe organisation by applying the National Principles for Child Safe Organisations. This is a commitment to a strong culture supported by robust policies and procedures to reduce the likelihood of harm to children and young people.

This document should be read in conjunction with this [disclaimer](#)

Aim

The aim of this policy is to establish guidelines for the appropriate and respectful use of stethoscope recordings for babies while maintaining patient privacy and adhering to ethical standards.

Risks

- Emotional impact: The use of stethoscope recordings may evoke strong emotions in parents, potentially exacerbating grief or distress. Healthcare providers should provide appropriate support and counselling resources.
- Data storage and security: Inadequate data storage and security measures may compromise the privacy and confidentiality of the recordings. Data must be stored securely in keeping with '[MP 0145/20 – Information Storage Policy](#)'
- Audio quality: Poor audio quality may diminish the value and emotional significance of the recordings. Efforts should be made to improve audio capture techniques and ensure the highest possible sound fidelity.

Key points

- Stethoscope recordings may be used in a range of settings
- In the palliative care context this may provide parents with a meaningful, lasting memory
- The use of stethoscope recordings should be handled with sensitivity, recognising the emotional impact on parents and the ethical considerations to

ensure accurate and appropriate use of the equipment and to minimise discomfort, or distress to the baby.

Background

The use of digital recording stethoscopes in healthcare has emerged as a valuable tool for capturing and documenting auscultatory findings. Digital recording stethoscopes improve the functionality of traditional stethoscopes by allowing the recording and storage of these sounds for further analysis, reference, and sharing. Some devices also offer noise cancelling.

Specifically in neonatal palliative care, audio recording stethoscopes serve a unique purpose¹⁻². Neonatal palliative care focuses on providing comfort, support, and dignity to babies and their families facing life-limiting or life-threatening conditions. In this context, digital recording stethoscopes offer a means to capture and preserve the sound of a baby's heartbeat, providing parents with a tangible keepsake. Though this has enormous potential to provide comfort to grieving parents, it is crucial to approach this with sensitivity, recognising the delicate nature of the situation and ensuring that ethical considerations, data privacy, and audio quality are carefully addressed.

Consent

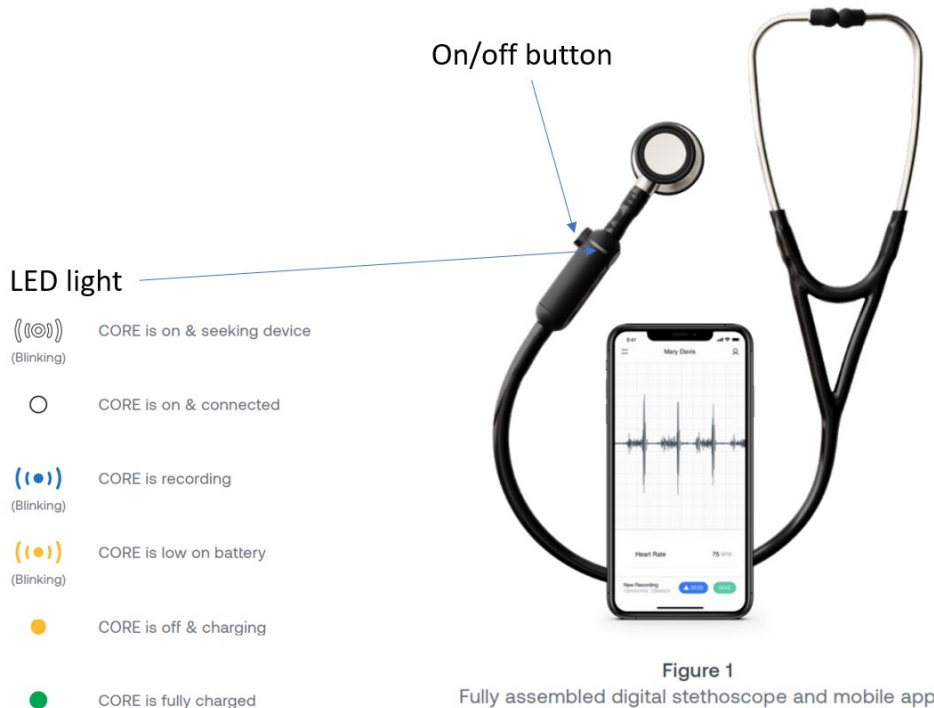
Prior to recording, parental consent must be obtained, clearly explaining the purpose, potential risks, and emotional impact of stethoscope recordings. Verbal consent is appropriate and this should be documented. Parents should be informed of their right to decline or withdraw consent at any time.

Parental support

Healthcare providers should offer emotional support, counselling services, and resources to parents who choose to receive stethoscope recordings. The potential emotional impact of the recordings should be acknowledged, and appropriate guidance provided.

Use and Recording

1. Download Eko app (parent's device or FamCam):
 - a. Apple: <https://apps.apple.com/mm/app/eko-digital-stethoscope-ecg/id1599911580>
 - b. Android: <https://play.google.com/store/apps/details?id=com.ekodevices.android.intl>
2. Log into app or create account
3. Turn on device then pair via Bluetooth



4. Record:

- a. .wav file via app - see [Appendix 1 for further details](#) (Pairing)
- b. Room audio played out loud via app, recorded via third party sound recording apps: Apple has 'Voice memos app' as default, android has various downloadable options

Audio quality improvement

- Perform recording in a quiet, closed room
- Place stethoscope where audio is loudest (likely left lower sternal edge)
- Press the chest piece directly on the patient's skin, and hold securely in place
- Try to make sure that nothing rubs against stethoscope

Sharing

- Stethoscope recordings should be treated as sensitive medical records
- Once recording is completed in app, share by selecting 'Patient' then 'Edit', scroll to the 'Share' section and insert the relevant email address. [See Appendix 2 \(Sharing\)](#)
 - This will result in an email link being sent to the relevant party to access the recording via the 'Eko Dashboard' website

- On the 'Eko Dashboard' click on the patient, then on the recording of interest which will allow that recording to be listened to or downloaded (as .wav)

Storage

Like other mementos, the data will not be stored so parents will need to be responsible for how they store the data.

Cleaning and Disinfecting Procedure

- The stethoscope and CORE should be disinfected between each use. Infection control guidelines from the Centre for Disease Control and Prevention (CDC) state that reusable medical equipment, such as stethoscopes, must undergo disinfection between patients.
- Standard stethoscope hygiene practices apply to the Eko device.
- All external parts of the hardware should be disinfected with 70% isopropyl alcohol wipes. Under normal conditions, it is not necessary to remove CORE attachment from the stethoscope tubing during the disinfecting procedure.
- NOTE: DO NOT immerse the device in any liquid or subject it to any high-pressure/autoclave sterilization processes.

Related CAHS internal policies, procedures and guidelines

[MP 0145/20 – Information Storage Policy](#)


References and related external legislation, policies, and guidelines

1. Andrews E, Hayes A, Cerulli L, Miller EG, Slamon N. Legacy building in pediatric end-of-life care through innovative use of a digital stethoscope. *Palliative Medicine Reports*. 2020 Aug 1;1(1):149-55.
2. Cleveland MF, Hamrick K, Vickers J, Huang CH, Tucker RO. My Heart Will Go On: Analyzing the Heartbeat Project as a Tool in Palliative and Bereavement Care (FR474). *Journal of Pain and Symptom Management*. 2020 Feb 1;59(2):482-3.

Useful resources (including related forms)

Audio quality improvement: <https://support.ekohealth.com/hc/en-us/articles/10772300530587-Best-practices-for-audio-quality-with-the-CORE>

This document can be made available in alternative formats on request.

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Healthy kids, healthy communities

Compassion Excellence Collaboration Accountability Equity Respect

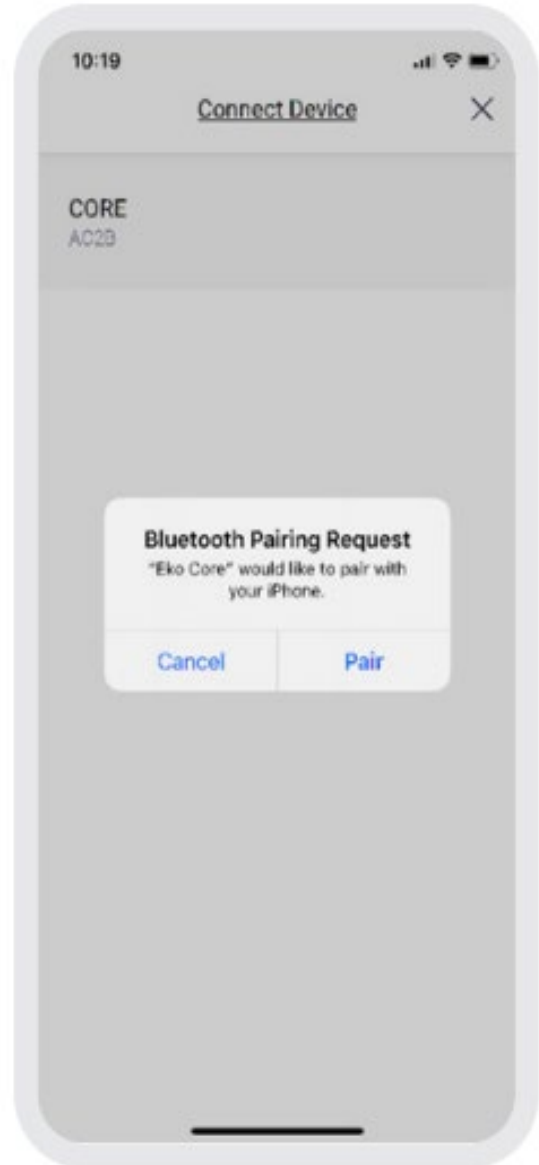
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Appendix 1 – pairing and recording

Pairing



3
Turn on CORE



4
Pair CORE

Recording



5

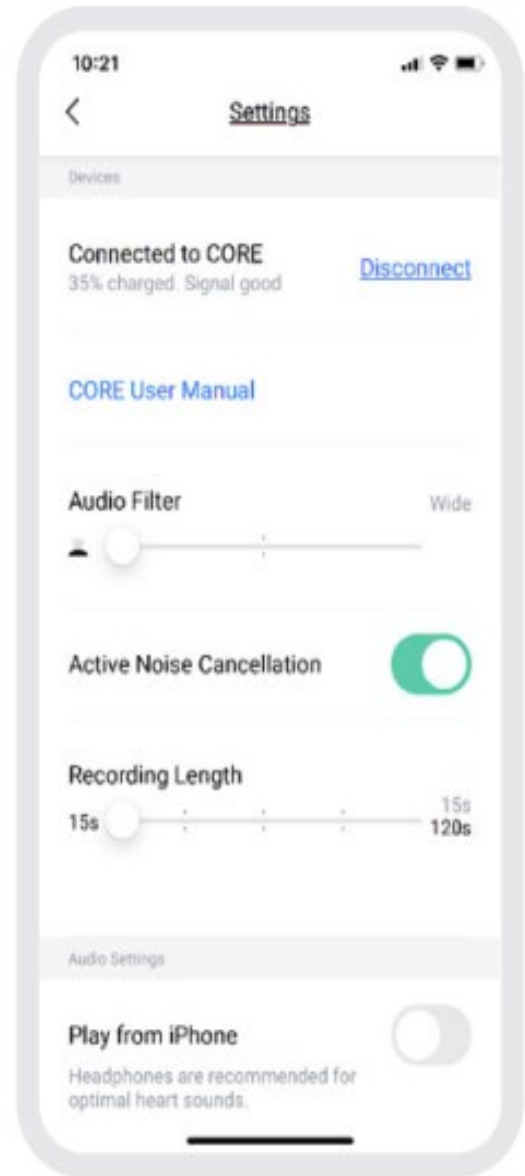
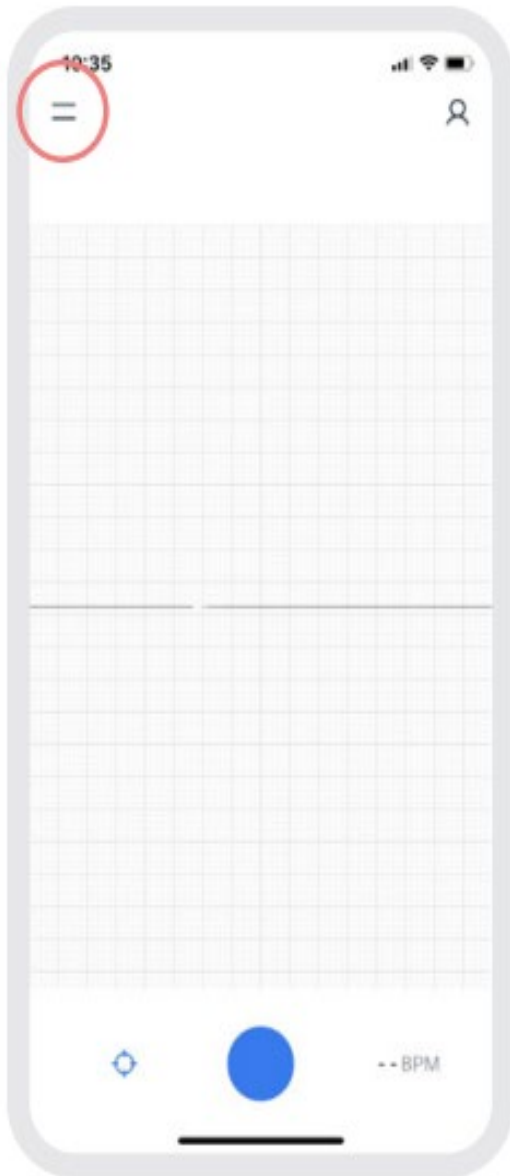
Start Recording:
Place CORE on the patient's chest; Press the blue button to start recording.



6

Save Recording:
Click save once your recording is complete

Settings



7

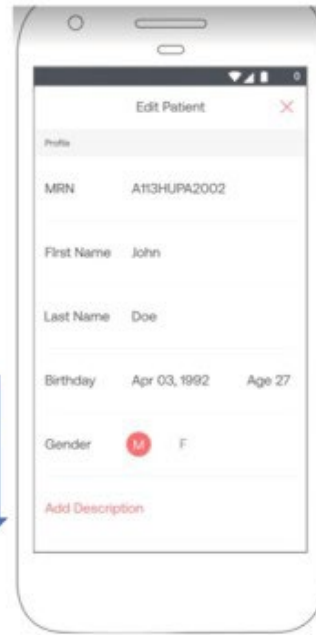
Eko Settings Menu

Adjust your settings by clicking on the (=) top left home screen

Appendix 2 – sharing

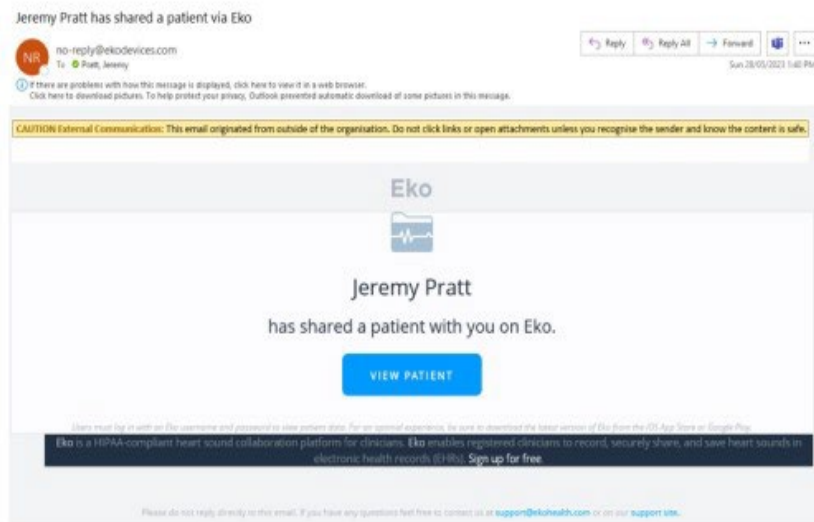
Sharing from app

1. Press 'Patient' then 'Edit'
2. Scroll down
3. Add email to 'Share' section
4. Press 'Done'



Sharing recipient

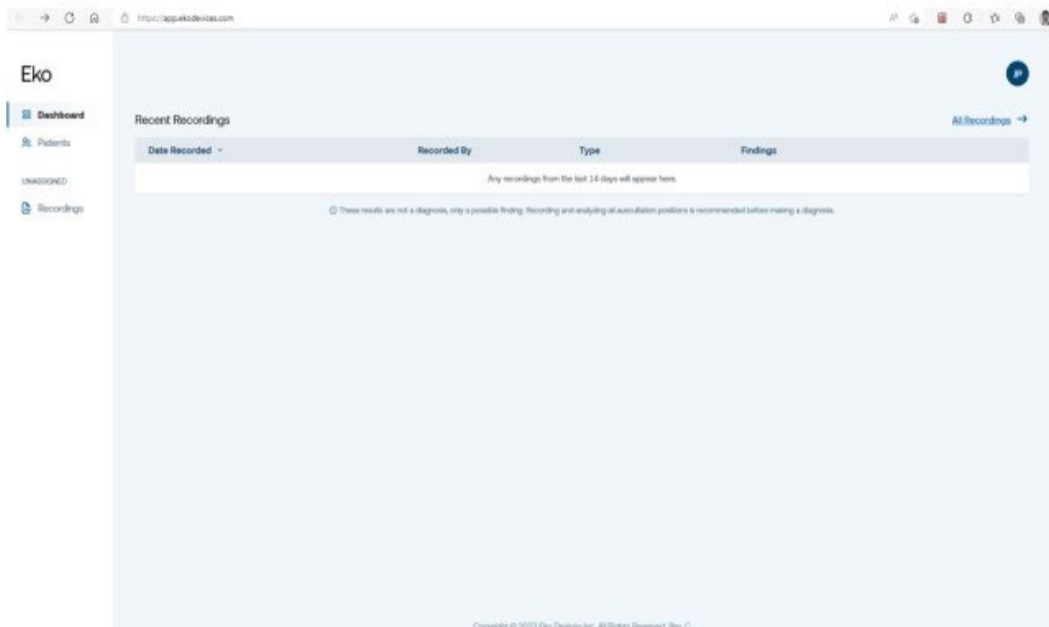
1. Receive this email
2. Create account



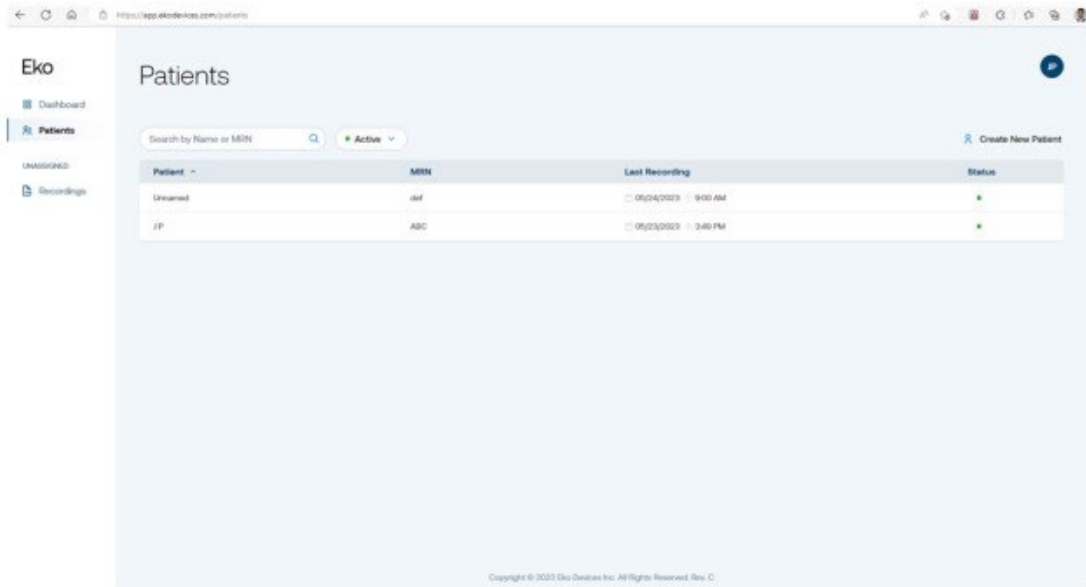
Desktop view = 'Eko Dashboard'

- Recipient email link → Eko Dashboard
- Required to download audio .wav file
- <https://app.ekodevices.com/login>
 - Same login as with mobile ap

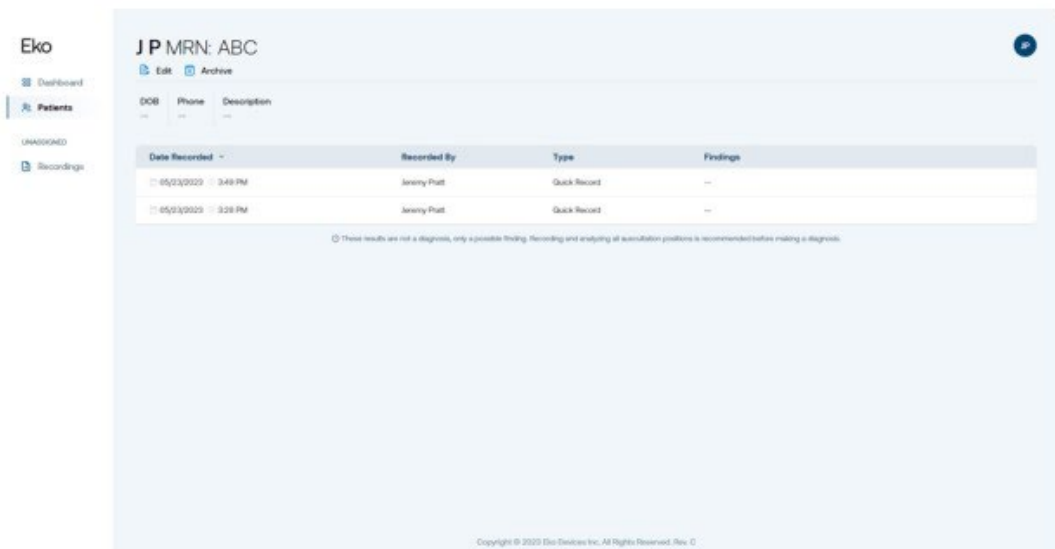
First log in screen



'Patients' tab



Patient view, multiple recordings



Individual recording view

