

## Local Guideline



John Hunter  
Children's Hospital  
CHILDREN, YOUNG PEOPLE AND FAMILIES



Health  
Hunter New England  
Local Health District

## NICVIEW® camera in NICU

<b>Sites where Local Guideline applies</b>	Neonatal Intensive Care Unit, John Hunter Children's Hospital
<b>This Local Guideline applies to:</b>	
1. Adults	No
2. Children up to 16 years	Yes
3. Neonates – less than 29 days	Yes
<b>Target audience</b>	Approval gained from the Children Young People and Families Network All clinicians working in the Neonatal Intensive Care and Special Care Unit at JHCH
<b>Description</b>	Provides instruction to the clinician to ensure the NICVIEW® camera system is used safely and appropriately

[Go to Guideline](#)

<b>Keywords</b>	Camera, Terms & Conditions, Families, Neonate, Parents, Privacy, Video, NICU, JHCH
<b>Document registration number</b>	
<b>Replaces existing document?</b>	No
<b>Related Legislation, Australian Standard, NSW Ministry of Health Policy Directive or Guideline, National Safety and Quality Health Service Standard (NSQHSS) and/or other, HNE Health Document, Professional Guideline, Code of Practice or Ethics:</b>	
<ul style="list-style-type: none"> <li>• <a href="#">Clinical Procedure Safety NSW Ministry of Health Policy PD2014_036</a></li> <li>• <a href="#">NSW Ministry of Health Policy Directive PD 2017_013 Infection Prevention and Control Policy</a></li> <li>• <a href="#">NSW Health Privacy Manual</a></li> </ul>	
<b>Prerequisites (if required)</b>	N/A
<b>Local Guideline note</b>	This document reflects what is currently regarded as safe and appropriate practice. The guideline section does not replace the need for the application of clinical judgment in respect to each individual patient but the procedure/s <b>requires mandatory compliance</b> . If staff believe that the procedure/s should not apply in a particular clinical situation they must seek advice from their unit manager/delegate and document the variance in the patients' health record.
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**PURPOSE AND RISKS**

*This local clinical procedure has been developed to provide instruction to the health clinician and to ensure that the risks of harm to the infant associated with use of the NICVIEW® camera system are prevented, identified and managed.*

*The risks are:*

- There is a risk that privacy legislation may be breached. In particular:
  - *Health Records and Information Privacy Act 2002*
  - *Privacy and Personal Information Privacy Act 1998*
  - *Workplace Surveillance Act 2005*
  - *Surveillance Devices Act 2007*
- Privacy concerns from both parents and staff
- Parental anxiety from observing stressful clinical procedures
- Increased parental anxiety, caused by disruptions in the communication.

*The risks are minimised by:*

- Reviewing all legislative and policy requirements related to privacy to ensure compliance
- Empowering staff with final control over disabling the camera at their discretion
- Ensuring adequacy of information in the parent information sheet
- Following the instructions set out in the clinical procedure
- Warning labels on the camera body to ensure parents are viewing their own infant
- Notification and management of the complications/ risks to the patient

**Risk Category:** *Clinical Care & Patient Safety*

**GLOSSARY**

<b>Acronym or Term</b>	<b>Definition</b>
LED	Light Emitting Device
MSP	Medical Service Panel
NICU	Neonatal Intensive Care Unit
NUM	Nurse Unit Manager

## RATIONALE

This Guideline does not replace the need for the application of clinical judgment in respect to each individual patient.

Infants born sick or premature may need to be admitted to the NICU at the John Hunter Children's Hospital ("JHCH") for a period, which can be prolonged. The NICU at JHCH is part of a state-wide network with a third of infants referred from outside greater Newcastle region. The admission of an infant to the NICU at JHCH can therefore lead to significant family disruption and disconnection from the family's normal community and support systems.

Family involvement is vital to optimizing attachment between families and infants and to enhance the infants' physical, cognitive, and socioemotional development. For this reason, the NICU at JHCH endeavours to minimise parental stress by minimising stressors such as feelings of separation, helplessness and isolation. One mechanism to reduce these stressors is utilising advances in telecommunications technology to allow parents and family members to see their infant via video link when they are unable to attend the NICU in person. At JHCH, parents have the ability to remotely view their infant the NICVIEW® camera service which they can choose to use once they have accepted the terms & conditions.

Over the past ten years, web-cameras have been increasingly used in NICUs to support parents and connect families with their hospitalised infant. Web-camera technology has been found to provide a unique opportunity for families to connect with infants admitted to a NICU using interactive, real-time technologies. This has been found to reduce the stressful experience for participating families by relieving anxiety and cultivating bonding experiences within the family. Improvements in the therapeutic relationship between health care professionals and parents have also been identified.

## TECHNICAL INFORMATION

### NICVIEW® camera system

The NICVIEW® camera system at John Hunter Children's Hospital consists of cameras mounted on flexible arms attached to the medical service panel (MSP). The camera allows web based access for one-way video only (no audio) in real-time for parents after parents have accepted the terms and conditions for access. The videos and images are not stored and similar instructions are given to parents prohibiting recording and/or distribution of videos or images provided through the NICVIEW® camera system.

### Security:

Log on and password: In accordance with Australian Standard on Information Security AS27002 and NSW Electronic Information Security Policy PD2013\_033, unique logon credentials will be used to access the images being transmitted from NICU. Details regarding the procedure for log on and passwords are provided below in.

Transmission security: Viewing is protected by encrypted transmissions using 256-bit SSL level encryption. This cryptographic technology is an advanced encryption standard (AES),

supported by the Australian Government's Signals Directorate. Live streaming is only accessible to specified users using passwords issued by the NICU. No recordings are made, and no images are stored

Process security (e.g. if infant moves NICU Bays): When a baby is moved to another bay, there are processes and fail-safe mechanisms that have been put in place described later in the document below.

Storage of images: The video stream is pass-through data only and not recorded on HNE information systems or on the NICVIEW systems and will not become part of the patient's clinical record.

### **Levels of access:**

NICVIEW® provides for different levels of access to the system's operational software:

1. Basic user: All bedside NICU staff
  - Able to view all cameras at login and their allocation status
2. Work flow user: NUMs and Team Leaders
  - In addition to access privileges for 1 above
  - Able to assign username & passwords
3. Administrator: Designated members of the NICU management team (Director, NM, DD, NUM2, NE)
  - In addition to access privileges for 1 & 2 above
  - Able to modify settings, add and delete users
4. Parents/End User: Recipients of username and password and can access camera for their infant only

**GUIDELINE**

**1) 'Basic' user**

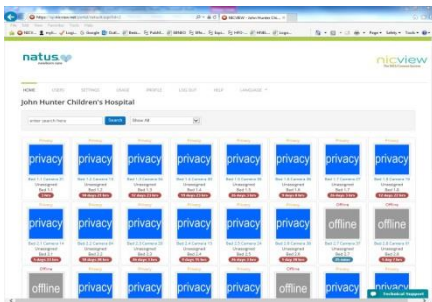
All bedside nursing staff will have access to the NICVIEW® camera system through the website – <https://ap.nicview.net>. If you do not have access, please contact an administrator level user.

1. Login to <https://ap.nicview.net> using your login (HNELHD email address) & password (check your email for your unique password).

Picture 1: Log on



2. Once logged in, you will be able to see all the cameras for the NICU, JHCH. Some of the cameras may be 'online', some 'offline' and others 'unassigned' (Picture 2).



Picture 2: Main screen

3. Click on the camera number for the bedspace that the infant you are caring for is located (Picture 3).



Picture 3:

4. Clicking on 'Make Private' will stop the video feed – similar to manually clicking the 'privacy button' on the front of the camera body

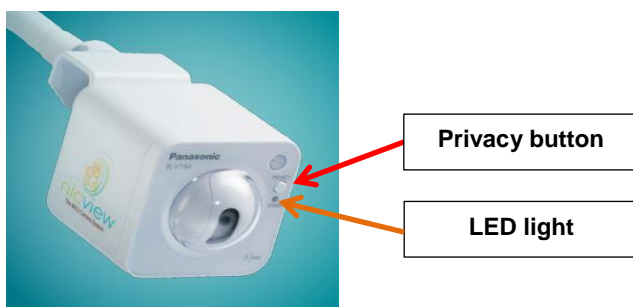


Picture 4: Make Private

## Using the camera system

1. Position the camera appropriately such that it does not interfere with opening of the humidicrib or access to other medical devices
2. Never grab the face of the camera to reposition; always use the flex arm
3. Always use 2 hands to bend the flex arm into different angles to provide the best view
4. Turn the camera on by pushing the privacy button – the LED light under the button will turn **green**.
5. The camera will be available for live streaming 24/7
6. The camera may be turned off during specific procedures – not limited to resuscitation events or placement of lines
7. The bedside nurse (NICVIEW® *basic user*) caring for the infant will have the absolute discretion on *disabling the video feed using the 'privacy' button ensuring that the indicator light has turned red*. The button is located at the front of the camera (see picture 'A' below)
8. ALWAYS use the manual privacy button on the camera body to stop the viewing; **do not use the power switch or unplug from the MSP**
9. **Special note:** Ensure that once the procedure is completed, the camera is turned back on & any parental query is courteously addressed
10. ALWAYS turn the camera off manually before the baby is moved from the bedspace
11. If bed space is not occupied or camera is not used, stow out of the way ensuring that the LED light is red & the camera face cover is in place (see picture 'B')

Picture A



Picture B



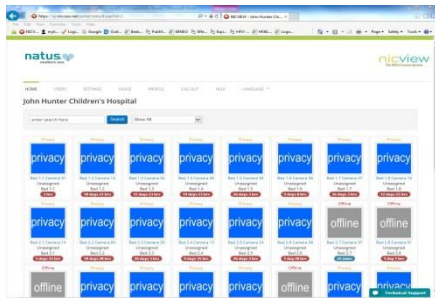
Camera tucked away when not in use

2) 'Workflow' user (Familiarise with all 3 parts below)

**Part A: Instructions for providing and activating parental access**

Parental access can only be provided and activated by the workflow user – i.e. NUM or TL for the shift.

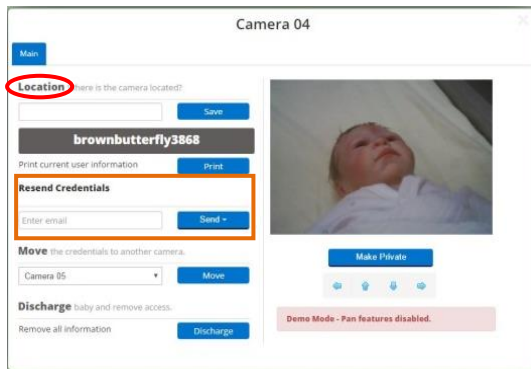
1. Inform parents of the NICVIEW® camera system
2. Provide parent information sheets & Terms and Conditions of use
3. Check infant MRN and parental acceptance of Terms and Conditions & file the form with infant's charts
4. Ensure that the camera is correctly positioned at the infant bedside
5. Ensure the camera is plugged in to the power supply and switch is turned on at the medical services panel (MSP)
6. **Ensure the camera is off – the LED light will be red**
7. Login to <https://ap.nicview.net> using your login & password.
8. Once logged in as a **workflow user** (NUM/TL for shift), you will be able to see all the cameras for the NICU, JHCH. Some of the cameras maybe 'online', some 'offline' and others 'unassigned' – see picture.



9. Check infant bed number with bedside nurse
10. Click on the appropriate camera number – example “Camera 3.4” (this would denote the camera for the bedspace in Room 3, bed number 4)
11. **CAUTION: Double check the bed & camera number with the bedside nurse**
12. Click on the correct camera – identified in step-10. A new window will pop-up.

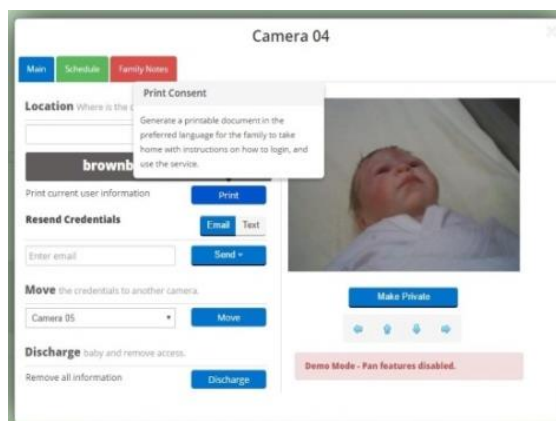


13. Click 'Assign'



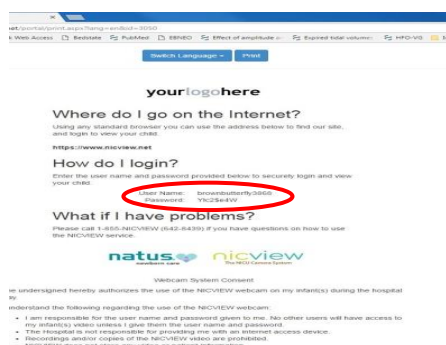
14. The system will auto generate a unique user name for the parents in the format of colour/animal/number

15. Enter parent email address (see picture above) and click 'Send'. This will send the username (step 14) and a unique password to the email address provided by the parents in the Terms and Conditions form – **OR**



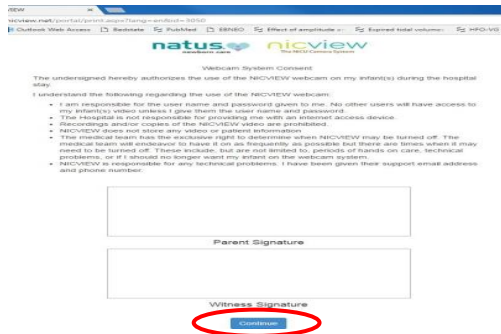
16. Click on 'Print'

17. This will open a new window with the username & password and the online Terms and Conditions

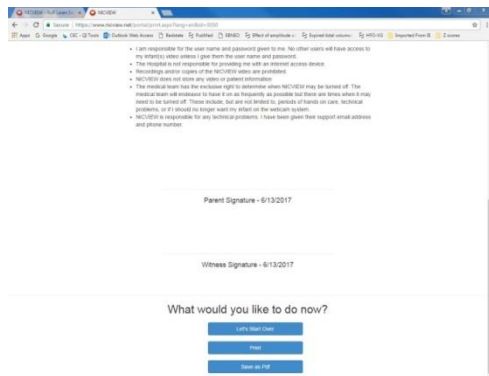




18. Scroll down the page and click ‘Continue’



19. Now click on ‘Print’ to obtain a print copy with the access information for parents



20. Remember to ‘Log Out’

21. Hand the printout to the parents emphasising that the importance of keeping this information secure is a parental responsibility

22. Turn the camera on by pushing the privacy button – the LED light under the button will turn **green**

23. Parents will now be able to log in using the credentials provided and be able to visualise real-time video of their infant

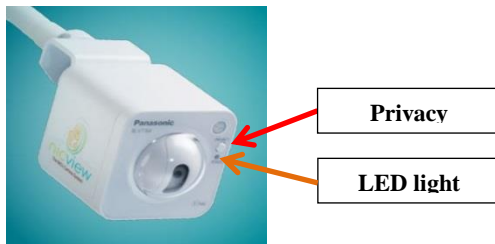
**Special considerations:**

- In situations where both parents are unavailable (such as an outborn infant) – a **verbal acceptance of Terms and Conditions** may be obtained for providing access and the parent access credentials sent via email (option for sending this via an SMS will become available soon).
- When parents have been provided access to the camera and subsequently care is assumed by Family and Community Services with infant put into care with foster parents, the NUM or TL should ensure that parental access is revoked after consultation with Family and Community Services.

## **Part B: Procedure for moving an infant to a different bed space** (*Workflow User Instructions*)

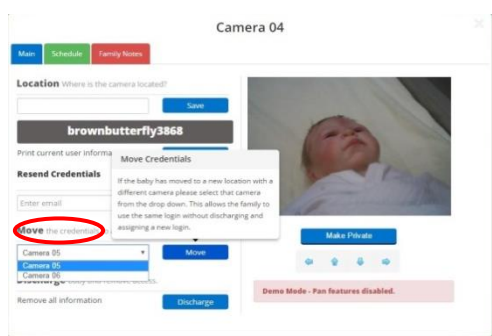
Prior to moving an infant to different bed space the shift Team Leader or NUM must:

1. Ensure that the bedside nurse is aware of the impending move and that the infant's parents have been informed;
2. Ensure that the camera has been turned off by pressing the privacy button (LED light is red) and that the camera has been stowed away



Once the infant has been moved to the **new** bedspace

3. Ensure that the camera is correctly positioned at the infant's new bedside
4. **Ensure the camera in the new bedspace is off by pushing the privacy button – the LED light under the button will turn red**
5. Log in through <https://ap.nicview.net> with your login and password
6. Click on the current bedspace for the infant – i.e. 'Camera 3.4'
7. In the pop-up window click the drop-down menu under '**Move** the credentials' and select the new camera – example: 'Camera 1.5' after re-checking the new bed number with the bedside nurse

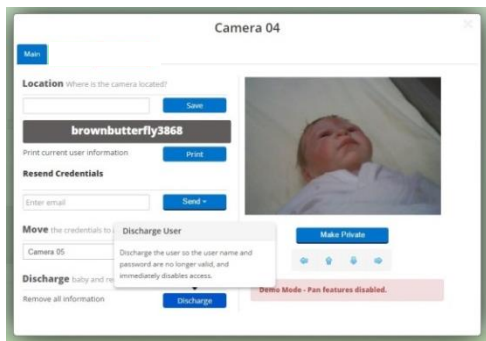


8. Next click on the 'Move' button
9. This will assign the camera at the new bedspace to the same login credentials initially provided to the parents
10. Turn the camera on by pushing the privacy button – the LED light under the button will turn **green**
11. The parents will now be able to log in using the same credentials at initial activation and be able to visualise real-time video of their infant

**Part C: Procedure for discharging an infant from NICU OR revoking parent credentials (Workflow User Instructions)**

When preparing to discharge an infant OR disabling camera system access, the shift Team Leader or NUM must:

1. Ensure that the bedside nurse and parents have been informed
2. Log in through <https://ap.nicview.net> with your login and password
3. Click on the current bedspace for the infant – i.e. ‘Camera 3.4’
4. In the pop-up window click on ‘Discharge’



5. This will revoke all credentials and deactivate access
6. Ensure that the camera in the infant’s bedspace is now stowed away (**LED light is red & face cover has been placed on the camera**)

**3) Parents/End Users**

**What will the parents see on accessing the NICVIEW® system?**

- Parents can access the camera located at their baby’s bedside using the unique login name and password provided by the NUM/team leader (NICVIEW® **workflow user**) after they have accepted the required Terms and Conditions for use. They will be able to see a real-time one-way video feed of their baby (Picture) using either a smartphone or computer with internet access.



- No audio can be transmitted in either direction.
- Parents will have access to an online survey on their experience on using the NICVIEW® system (see Appendix 3).
- In addition, they will be able to access a donation link administered by Communication, Fundraising & Volunteering, CYPF, HNELHD.

**Key points:**

- Staff should endeavour to maximise availability and access to the NICVIEW® camera system.
- Bedside clinical staff can turn the video streaming off by pressing the privacy button and noting that the red LED light is on at their complete discretion without the need to first inform parents.
- Ensure that the privacy button is activated and the red LED is on when the infant is requiring resuscitation or an invasive procedure.
- When parents have declined access to NICVIEW®, please ensure that this is documented in the patient charts and on the parent care board.

#### 4) Cleaning the camera & arm

These instructions are specific for cleaning of the cameras and arms only. Standard disinfectant procedures in place for the NICU, JHCH still apply.

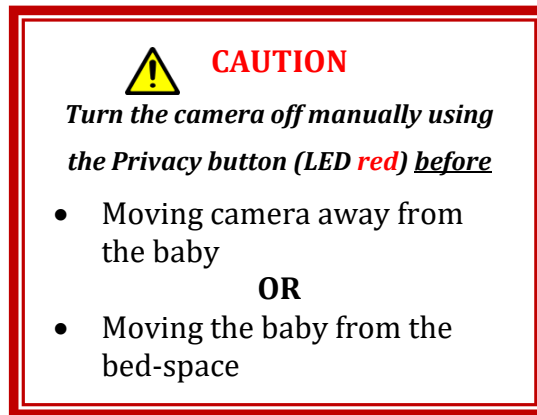
- Use water, a light concentration of disinfectant, or solvent to avoid damaging the materials.
- Soft cloths or wipes are preferred for cleaning:
  - Ensure cloths are not overly moist
  - Exercise caution when cleaning the audio port, located on the left side of the camera and marked by the geometric holes. Wipe lightly so that moisture doesn't pass through.

**ATTENTION:** Do not use Alcohol, Scouring compounds, Abrasives or Powered soap, Benzene Thinner, Wax, Petroleum, Boiling water to clean the cameras or arms.

Please see the NICVIEW® folder in the NICU write-up room for hard-copy version for product information on NICVIEW®, procedures for providing and activating parental access and for printed parent information sheets and Terms and Conditions forms. These documents have also been attached as appendix numbers 1, 2 & 3 to this guideline.

## Appendix 1

The following label (plastic sticker) will be placed on the body of each camera.



**Size: 6cm x 5cm**

## Appendix 2

### NICVIEW® Camera System

#### Parent Information Sheet & Terms and Conditions

When a baby needs care in a Neonatal Unit it is a stressful time for the entire family. The NICVIEW® camera system creates a window into the neonatal unit. Individual cameras above the baby's bed provide parents with real-time viewing over the internet.

This service does not affect the way that the clinical team interacts with you. The staff will always have detailed communications with you and will update you of any changes in your baby's clinical condition.

#### *Strengthening the Bond: Bringing Family Together*

Bonding between parents and their newborn is as important in the neonatal unit as it is at home. Having the ability to watch your baby anywhere can help keep you involved and strengthen the connection between you and your baby. When you need to be away from your baby, no matter where you are, you can see your baby in real time.

With the camera system, traditional boundaries of distance disappear. Family, across the street or across the globe, can see the newest family member.

### **Important things to know about the NICVIEW® camera system**

#### *How can I gain access to NICVIEW®?*

To gain access to this service, you will need to sign and accept the 'Terms and Conditions' of the service. Once your details have been noted, you will receive an email with your login credentials to access the website <https://ap.nicview.net/login.aspx>. You can also choose to receive this information as a paper printout.

#### *What equipment will I need to use this service?*

To use this service, you will need a device that can connect to the internet such as a smartphone or a computer. There is no need for software downloads. The quality of the video will depend on your internet connection speed and your device. The neonatal unit does not charge families to use the service. However, please take into consideration the costs of data usage by your chosen Internet Service Provider.

#### *How will your privacy be protected?*

All reasonable measures have been taken to protect the privacy of your baby and your family. You will need to supply a valid email address to activate the service. An email will be sent to the email address you provide with a unique username and password to access the video image of your baby. If you choose to get a paper copy instead, it will be your responsibility to keep this confidential. Your unique login details will give you access to the camera above your baby's cot. Personal information that you provide to activate the NICVIEW® service will **not** be distributed to a third party or used for any other purpose.

All video and information is secured with 256-bit SSL encryption (the web security standard). No video is stored. No audio is available.

You Control Access: Please do not share your information with anyone you do not want to have access to the webcam. No one else will be able to access the system, except for authorized personnel in the neonatal unit. A recording is not able to be made from the video stream.

### *What Will I See?*

Once you are logged in, you will see real time video of your baby.

The intent of the camera system is to provide peace of mind for you, your family and friends. If your baby has a blanket over the humidicrib, your view will be darkened. Please understand that a dark humidicrib is intentional to allow developmentally appropriate care for your baby. If your baby is receiving phototherapy, the colour on the screen will be distorted – this is normal. Please note that the NICVIEW® camera system does not transmit sound.

The care you see and experience when you are in the neonatal unit is the same when you are home. Babies will move, cry and spit up. These are all natural baby responses. The medical team is always monitoring your baby and will know if they need attention. We ask for your patience during these times. If you see something, please make a note to ask your nurse on your next visit to the neonatal unit.

If the nurse is providing active treatment for your baby, the camera may be temporarily offline. You will receive an offline message. Please rest assured in knowing that your nurse is providing exceptional care to your baby. The safety and security of your baby is our greatest priority, therefore offline messages will occur. This is **not** an indication of a problem, only that your loved one is being cared for. The process of communicating changes in your baby's clinical condition would still continue as usual.

### *Who should I call if I have problems with the cameras?*

Our staff will try to make sure that the cameras are working at all times. However, sometimes there may be technical problems or the care team may need to turn the camera off to attend to a procedure.

Please contact [support@nicview.net](mailto:support@nicview.net) or phone (03) 6144 5860 for any technical support.



## **NICVIEW® Camera System**

### **Parent Terms and Conditions**

By accessing the NICVIEW® camera system, I confirm that:

- Hunter New England Health provides the NICVIEW® camera system for use by the parent(s)/ legal guardian(s) of infants admitted to Neonatal Units wishing to view a video feed from the patient's bedside.
- I have received and understood the information provided to me on the NICVIEW® camera system and all my questions have been answered to my satisfaction.
- I am responsible for the unique user name and password given to me. I understand that no other users will have access to my infant's video unless I give them the user name and password.
- The hospital is not responsible for providing me with an internet access device.
- Recordings and/or copies of the NICVIEW® video are prohibited.
- NICVIEW® does not store any video or patient information.
- The clinical team will endeavour to have the NICVIEW® camera system on as frequently as possible but they will turn it off at their absolute discretion. Times when the camera will be turned off include, but are not limited to, clinical procedures or technical problems.
- I also understand that at any time, permission may be revoked for having a webcam available for viewing of the patient at the complete discretion of the Neonatal team.
- NICVIEW® is responsible for any technical problems. I have been given their support email address and phone number.

**By accessing the NICVIEW® camera system;**

I agree to the above terms and conditions and release the hospital, its trustees, officers, employees, agents and representatives, including the medical staff of the hospital, from any injury and/or damages sustained as a result of the webcasting, including but not limited to, claims for personal injury, property damage, invasion of privacy and breach of confidentiality.

Patient name: \_\_\_\_\_

MRN: \_\_\_\_\_ Date of Birth: \_\_\_\_\_

*(Affix patient label where available)*

Parent's full name: \_\_\_\_\_

**Parent's email address:** \_\_\_\_\_ **Mobile Phone number:** \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Name of witness: \_\_\_\_\_ Designation: \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

**Appendix 3**

**NICVIEW® Camera System Parent Feedback Survey**

*(via SelectSurvey)*

**5 = Strongly Agree 4 = Agree 3 = Neutral 2 = Disagree 1 = Strongly Disagree**

1. The NICVIEW® experience met my expectations

**5 4 3 2 1**

2. Being able to see my baby helped strengthen bonding with my infant

**5 4 3 2 1**

3. The system provided me with extra peace of mind when I was unable to be at the bedside

**5 4 3 2 1**

4. The camera system reduced my visits to the neonatal unit

**Yes No**

5. I used the camera system from my

**Smartphone Tablet device Computer**

6. I provided access to family and friends to view my baby

**Yes No**

7. Comments: \_\_\_\_\_  
\_\_\_\_\_

## References:

1. Epstein et al. An integrative review of technology to support communication with parents of infants in the NICU. *J Obstet Gynecol Neonatal Nurs.* 2017; 46(3): 357-366
2. Rhoads et al. Challenges of implementation of a web-camera system in the neonatal intensive care unit. *Neonatal Network.* 2012; 31(4): 223-228
3. Yeo et al. Virtual visitation in the neonatal intensive care: Experience with the use of internet and telemedicine in a tertiary neonatal unit. *The Permanente Journal.* 2011; 15(3): 32-36
4. Rhoads et al. Web camera use of mothers and fathers when viewing their hospitalized neonate. *Advances in Neonatal Care.* 2015; 15(6): 440-446
5. Joshi et al. Web camera use in the neonatal intensive care unit: Impact on nursing workflow. *Clinical Medicine and Research.* 2016; 14(1): 1-6
6. NICVIEW™ Web Camera System, Instructions for Use. Natus® newborn care, nicview™. (Resource available under the 'Help' tab at user login).

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## IMPLEMENTATION, MONITORING COMPLIANCE AND AUDIT

1. The document will be communicated via emails and uploaded on the PPG
2. In-service on use of the NICVIEW™ system, as well as bedside teaching for staff will be provided as required
3. Parental satisfaction will be monitored by the Select Survey tool and reported bi-annually at the NICU Operational, Planning & Management Meeting

## APPENDICES

Appendix 1: NICVIEW label  
Appendix 2 Parent Information Sheet & Terms and Conditions Form  
Appendix 3 NICVIEW® Camera System Parent Feedback Survey

## FEEDBACK

Any feedback on this document should be sent to the Contact Officer listed on the front page.