# NICU Car Seat Decision Algorithm for the Infant Car Seat Challenge Test

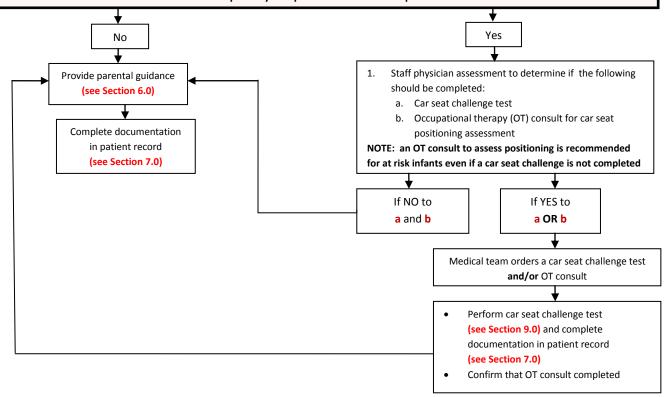
## Instructions

- Refer to Car Seat guideline for full details
- Complete car seat assessment and guidance within 3 days prior to discharge
- Provide parents with information about car seat safety from About Kids Health or the Canadian Pediatric Society
- The infant has been reviewed by the medical team to determine if an infant car seat challenge test is required and:
  - A car seat challenge test is required →if required refer to NICU guideline for completion and documentation
  - A car seat challenge test is not required

## **Decision Algorithm for the Infant Car Seat Challenge Test**

# INFANTS AT POTENTIALLY INCREASED RISK FOR ADVERSE CARDIORESPIRATORY DECOMPENSATION IN THE UPRIGHT POSITION (E.G. CAR SEAT, SWING)

- Airway maintenance concerns
  - (e.g. tracheostomy, stridor, previous airway surgery)
- Receiving supplemental oxygen
- Neuromuscular disorders (e.g. hypotonia, hypertonia)
- Conditions that affect positioning in the upright position (e.g. omphalocele, large abdominal or back dressings)
- Infants assessed to be at risk for cardiorespiratory compromise in the seated position



# Exception

Infants being discharged with a "No CPR" order may not require an infant car seat challenge test. This should be discussed with the medical team with the decision documented in the health care record. Whether a car seat challenge test is completed or not, parents should be provided with instructions on what to do if their child stops breathing in the vehicle. Please see Cardiopulmonary Resuscitation (CPR) Hospital Policy and Procedure  $\rightarrow$  http://policies.sickkids.ca/published/Published/CLINH66/Main%20Document.pdf

## **NICU Car Seat Safety Checklist**

#### **Parent Resources**

- Canadian Pediatric Society, Caring for Kids <a href="http://www.caringforkids.cps.ca/handouts/car">http://www.caringforkids.cps.ca/handouts/car</a> seat safety
- About Kids Health <u>www.aboutkidshealth.ca</u>
- Parachute Canada (formerly Safe Kids Canada) www.parachutecanada.org
- Transport Canada, Child car seat safety <a href="https://www.canada.ca/en/services/transport/road/child-carseat-safety.html">https://www.canada.ca/en/services/transport/road/child-carseat-safety.html</a>
- Car Seat Clinics (from Transport Canada) <a href="https://www.canada.ca/en/services/transport/road/child-car-seat-safety/child-car-seat-safet

## Parents/Guardians have been educated on the following:

## ☐ Why the car seat is required

- Many injuries or deaths can be prevented with the right use of car seats
- A rear-facing car seat supports a baby's neck in a sudden stop or crash
- Babies have large heads and weak necks; car seats are angled backwards because babies need extra support
  while riding in a car

#### It's the law

- Provincial law (Ontario's Highway Traffic Act) requires the use of a rear-facing infant restraint car seat placed in the rear/back seat of the vehicle until infants weigh at least 9kg (20 lb.). This is the minimum requirement
- One parent/guardian may need to travel in the rear seat to observe infant positioning and safety during transportation
- The manufacturer's instructions should be followed including ensuring the infant meets the weight and height requirements

Infant Only Car Seat



Rear-facing infant restraint car seat placed in the rear/back seat

## ☐ The car seat must have a National Safety Mark and must not be expired

- The National Safety Mark indicates that the child car seat is certified to Canadian safety standard
- The car seat must have a National Safety Mark. The label should not be older than 10 years
- Check the expiry date posted on the car seat. Only use a car seat that is not expired
  - Expiry dates are in place because of "plastic fatigue" (parts get more brittle or break easily





Only buy car seats from a Canadian retailer: This ensures the seat meets Canada's rigorous safety regulations

# Only use car seat for travel in a motor vehicle

- Infant's should only be placed in a car seat for travel in a moving vehicle and removed promptly once the destination is
- Due to the risk of slippage leading to airway compromise and asphyxiation, car seats should not be used as sitting devices when not being transported in a motor vehicle

## ☐ The car seat should not be used as a crib

- Infant car seats are NOT cribs and/or temporary cribs
- Infant car seats do not meet the safety requirements for a crib or a swing
- Cribs, swings and other devices have their own safety standards to keep infants safe (Transport Canada)
- When an infant is placed in an infant car seat outside of a vehicle, the centre of gravity is raised making it top heavy and unstable. The movement of the baby can result in the infant car seat tipping over and the harness system can then exert sufficient pressure on the infant's neck to cause asphyxiation (strangulation)

## **NICU Car Seat Safety Checklist**

## □ No padding should be placed behind or under the baby

- Don't use any add-on features that are not provided by the manufacturer, such as a bunting bag, head-hugger, tray or comfort strap. These can affect the safety of the seat and can be dangerous in a collision.
- During a motor vehicle collision the padding will be compressed and there will be "slack" created in the harness straps
  placing the infant at increased risk for injury.
- Cold weather: if it is cold, tuck a blanket over the infant after the infant is secured

## Do not use a car seat that has previously been involved in a collision

Car seats involved in a collision, even if empty, must be disposed of and a replacement obtained. Do not use a seat that has been in a crash or seat for which you do not know the history

## ■ What if no rear seat is available in the car?

As per Transport Canada, a rear-facing infant seat must never be placed in the front passenger seat unless the air bag is turned off. A permit from Transport Canada is required to have this deactivation completed <a href="https://www.tc.gc.ca/eng/motorvehiclesafety/tp-tp13178-page4">https://www.tc.gc.ca/eng/motorvehiclesafety/tp-tp13178-page4</a> e-184.htm

## B. Assessing Infant for Correct Harnessing

Infant is seated at a 45 degree angle to simulate positioning in vehicle
 The chest clip is at the armpit or nipple line level
 Harness straps are lying flat, are sung and are threaded at or just below the infant's shoulders
 Assessing for harness for adequate tightness: Do the ``pinch test``

- $\hfill \square$   $\hfill$  Pinch the harness strap at the shoulder
- ☐ The straps are tight enough when you can no longer grab any excess webbing/slack
- ☐ If more than one finger fits between the shoulder harness and the infant's collarbone, the harness is too loose
- ☐ The seat handle is in the position recommended by the manufacturer

#### Infant Only Car Seat



Chest clip should be at armpit level.

Harness straps must be flat and snug
only one finger fitting between the
strap and the child's collar bone.

# Do not add additional devices

- Do not use any add-on features for car seats that are not provided by the manufacturer, such as a bunting bag, head-hugger,
   tray or comfort strap. These can affect the safety of the seat and can be dangerous in a collision
- No padding should be placed behind or under the baby because during a motor vehicle collision the padding will be compressed and there will be "slack" created in the harness straps placing the infant at increased risk for injury

# C. Documentation: Health Care staff will ensure and document that:

The infant car seat has a National Safety Mark present and that it has not passed the expiry date
Parent/guardian has demonstrated proper infant securing according to the manufacturer's guidelines and the modifications
The infant has been assessed for the infant car seat challenge testing. If the infant car seat challenge testing is completed,
results are documented in the infant chart