

# Sarnat Scoring

Jayne Solomon ARNP-BC St. Joseph's Women's Hospital August 5, 2017

## Disclosure



▶ I have nothing to disclose





- Describe the rationale for Sarnat Scoring Certification.
- Review the requirements for Sarnat Scoring Certification.
- Review strategies that will assist teams in obtaining and maintaining certification.

#### Rationale for Certification Process



- Establishing competency in scoring reduces inter-examiner variability and increases the accuracy of individual examiner scores
- Increases sensitivity of identifying infants who qualify for cooling
- Inclusion criteria for cooling include both objective and subjective data

# Initial Screening Criteria for Therapeutic Hypothermia



- Gestational Age greater than or equal to 35 weeks
- Birth weight greater than or equal to 1.8 kg
- Less than or equal to 6 hours since insult occurred
- Biochemical criteria
- Abnormal neurological exam

|  | Check box if examiner is Gold Standard  If exam is anducted by physician desiring to  be certified, provide name of Gold Standard  Examiner:   |  | Date of Exam: / / 20   |  |                           | 1/                          | 1 <sub>1</sub> ,  | ARYBAC II NEUROL   | OGIC IXAM CENTIFICA  |  |  |
|--|--|--|--|--|---------------------------|-----------------------------|---|--|--|--|--|
|  |  | 1  | _ Site Name  |  | lour Minute               |                             | Newexam   | ners should rev  |  | ol and training slides pli   |  |
|  | Infant # (refer to infa<br>1 Does the infant hav<br>2. Is the infant sedate<br>See definitions for Neurologic  | ve seizures?<br>ed/paralyzed?  | Initials or names should n   | not be used)   | Y N<br>Y N                |                             | Check box if examiner is of if exam is conducted by p be certified, provide name Examiner:  | hysician desiring  | ysician desiring to Examiner Nam   |  |  |
| - 1  | The 6 CATEGORIES:  |  | SIGNS OF HIE IN EACH CATEGORY  |  |                           | 2                           |   | 1.   | m +.   | 1  |  |
|  | NORMAL/<br>MILD HIE  |  | MODERATE HIE SEVERE HIE  |  | Your Determination:       |                             | Infant #(refer to infant b nu hb hitials or raimes should not be used)  1 Does the infant have selectes? 2 Is the infant sedated/paralyzed? See definitions for Neurologic Examination on page 2  |  |  |  |  |
|  | 1. LEVEL OF CONSCIOUSNESS  | 1  | 2 = Lethargic  | 3 = Stupor/coma  |                           | =                           | The 6 CATEGORIES:   | Ogic Examination   |  | F HIE IN EACH CATEGORY   |  |
|  | 2. SPONTANEOUS ACTIVITY  | 1  | 2 = Decreased activity   | 3 = No activity  |                           | =                           | 1   | NORMAL/  |  |  |  |
|  | 3. POSTURE   |  | 2 = Distal flexion,<br>complete extension  | 3 = Decerebrate  |                           | =                           | 0   | MILD HIE   | MIODEIGATETI   | -/ (   |  |
|  | 4. TONE  | 1  | 2a = Hypotonia (focal or general)  | 3a = Flaccid<br>3b = Rigid   |                           | =(note a or b)              | LEVEL OF CONSCIOUS ACTIVIT     SPONTANEOUS ACTIVIT  | ang  | 2 ethargic<br>2 = Decreased activ  | 3= Stupor/coma vity 3 = No activity  |  |
| 1  | 5. PRIMITIVE REFLEXES  |  | 2b = Hypertonia  |  |                           | Code highest level          | 3. POSTURE  | 1  | 2 = Distal flexion,<br>complete extension  | 3 = Decerebrate  |  |
|  | Suck<br>Moro   | 1  | 2 = Weak or has bite<br>2 = Incomplete   | 3 = Absent<br>3 = Absent   | =                         | 7                           | 4. TONE   | 1  | 2a = Hypotonia (fo<br>general)<br>2b = Hypertonia  | cal or 3a = Flaccid<br>3b = Rigid  |  |
| 1  | €. ♠UTONOMIC SYSTEM  |  |  |  |                           | Code highest level          | 5. PRIMITIVE REFLEXES   |  | ED = TTYPET COMO   |  |  |
| -  | <b>Y</b>   |  |  | 3 = Deviation/dilated/non-reactive   |                           |                             | Suck  | 1  | 2 = Weak or has bit  | te 3 = Absent<br>3 = Absent  |  |
|  | Pulls  | 1  | 2 = Constricted  | to light   |                           |                             | Moro  6. AUTONOMIC SYSTEM   | 1  | 2 = Incomplete   | 3 = Absent   |  |
|  | Respiration  |  | 2 Periodic Breathing   | 3a on vent w/ spont breaths<br>3b= on vent w/out spont breaths   |                           | (it vent, code a or b)      | Heart rate  | 1  | 2 = Bradycardia  | to light<br>3 = Variable HR  |  |
|  | 3. Total Cartegories:  | should be NO M   | NORE THAN 6 (Count Only  | the Highest Level in each sign)  |                           |                             | New examiners   |  | BAC II NEUROLOGIC E  | EXAM CER AFICATION FO  |  |
|  | 3. Total Categories:   | BEST   | II NEUROLOGIC EXAM   | the Highest Level in each sign)  M CERTIFICATION FORM  ing slides prior to completing the cer                          | rtification forn          | n.                          | New examiners  Check box if examiner is Gold  If exam is conducted by physi be certified, provide name of Examiner:   | should review to<br>Standard Lacian desiring to  | he study protocol and t  | EXAM CERAFICATION FO<br>craining slips prior to some<br>Date of E  |  |
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| Ngyexamin  |   |   | OGIC FXAM CERTIFICA  |                     | certification form.                    |             |  |
|--|---|---|--|---------------------|--|-------------|--|
| Check box if examiner is G<br>If exam is conducted by ph   | ysician desirin                             | g to Examiner Name  |  | Date of Exam:       | late of Exam: / / 20<br>Month Day Year |             |  |
| be certified, provide name<br>Examiner:  | of Gold Stand                               | Site Name   |  | Time of Exam:::     |  |             |  |
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| The 6 CATEGORIES:  |   | SIGNS O   | SIGNS OF HIE IN EACH CATEGORY  |                     |  |             |  |
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| 1. LEVEL OF CONSCIOUSN   | ahe   | 2 Rethargic   | 3= Stupor/coma   | hit                 | - (                                    |             |  |
| 2. SPONTANEOUS ACTIVITY  | 7//   | 2 = Decreased activ   |  |                     |  |             |  |
| 3. POSTURE   | 1   | 2 = Distal flexion,<br>complete extensio                              | 3 = Decerebrate  |                     |  |             |  |
| 4. TONE  | 1   | 2a = Hypotonia (fo<br>general)  |  |                     | =(note a                               | or b)       |  |
| 5. PRIMITIVE REFLEXES  |   | 2b = Hypertonia   |  |                     | Code hi                                | ighest leve |  |
| Suck   | 1   | 2 = Weak or has bi  | te 3 = Absent  |                     | =                                      | grest leve  |  |
| Moro   | 1   | 2 = Incomplete  | 3 = Absent   |                     | · ]}                                   |             |  |
| 6. AUTONOMIC SYSTEM  |   |   |  |                     | -Code hi                               | ighest leve |  |
| Pupils   | 1   | 2 = Constricted   | 3 = Deviation/dila   | nted/non-reactive : |  |             |  |
| Heart rate   | 1   | 2 = Bradycardia   | to light 3 = Variable HR   | ],                  |  |             |  |
| New examiners is Gold S If exam is conducted by physicibe certified, provide name of G Examiner: | hould review t<br>tandard<br>an desiring to | BAC II NEUROLOGIC Ethe study protocol and to Examiner Name  Site Name | EXAM CERTIFICATION FOR raining slifts, price to complete the complete to the complete the comple | Month Day           | y Year                                 | b)          |  |
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| 4. TONE  | , g   | a = Hypotonia (focal or<br>eneral)                                    | 3a = Flaccid<br>3b = Rigid   |                     | (note a or b)                          |             |  |
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| Respiration  |   | e = Periodic Breathing  | 3 = Apnea requiring ventilat<br>3a= on vent w/ spont bro<br>3b= on vent w/out spont  | eaths               | (if vent, code a or b)                 |             |  |

#\_\_\_\_ Moderate

#\_\_\_\_ Mild/Normal

#\_\_\_\_ Severe

#### Validation Tool



- Streamline certification process
- Educate team members
- Evaluate performance
- Correctly document the exam



#### Components of Education and Skills Validation

- Establish eligibility
- Knowledge Review
- Performance & Critical Steps
- Validation
- Submission

# Establish Eligibility



- Screen for appropriate infants greater than or equal to 35 weeks
- Type of infant for exam
- Two examinations required
- Two infants with neurologic abnormalities OR one infant with neurologic abnormality and one with normal findings

# Knowledge and Review



- HIE Supportive Care Management Guidelines. State of Florida Protocol
- Policy and Procedure: Care of the Infant with HIE
- View: <u>Screening Neurologic Exam For Therapeutic Hypothermia</u> @
  http://hopefn3.org

### Performance



- Verbalize if infant meets the biochemical criteria for cooling
- State the components of the observational portion of the exam
- State the components of the active portion of the exam
- Complete Neurologic Exam Certification Form

#### Validation



- Gold standard examiner scores the infant
- Team member independently examines infant and completes neurologic exam form
- Gold standard examiner reviews exam with team member
- Discuss any differences in exam scoring and form completion
- \*If exams are discordant in more than 1 category, repeat competency
- Two successful exams are required for certification

# Submission/Processing



- If your center is participating in the BABYBAC II Trial, email PDF of both exams to Meg Crawford for review by Dr. Shankaran
- If your center is not participating, Sarnat Certification Scoring forms can be emailed to Livia Sura (livia.sura@peds.ufl.edu)
- A list of certified examiners will be posted on the RTI & FN3 website

## Putting it all together



- Sarnat Scoring Education and Skills Validation
- Neurological Exam Certification Form
- Sarnat Certification PowerPoint
- Neurologic Exam PowerPoint
- HIE Protocol (State of Florida)
- Policy & Procedure: Care of the infant with HIE (unit specific)
- Completed Exams
- Team Roster