Written Case 8 Rating Sheet

24-hr. old, full-term, baby girl, small for gestational age, born to 20-year-old woman who presented to emergency department with abdominal pain and found to be in labor. Delivered precipitously in emergency department not long after. Mom unaware of pregnancy; using heroin, cigarettes, and marijuana up until the delivery. Lives alone. No family in area. Does not know who father of the baby is. Transferred to the birthing unit for postpartum care; both mom and baby stable. Blood sugars and temperatures normal since birth.

Time 1 (24 hrs. of life)

Mom present in room entire time, holding baby when she is awake. Baby fussy with tremors and exaggerated Moro with any noise able to calm within approximately 5 min. and remain calm. Able to sleep for 2 hrs. while held. When baby woke up, was excessively rooting making it hard for mom to get bottle in baby's mouth. Last feeding approximately 3 hrs. ago. After 15 min. of trying, baby able to take 15 mL of formula. Mom keeping room calm; no visitors are present. RN performed assessment and vital signs 4 hrs. after last assessment.

Time 2 (27 hrs. of life)

During past 3 hrs., mom off unit for smoking break and then trip to methadone treatment center for new intake visit. No family available to keep baby in room. Baby in nursery and being watched by a nurse's aide who is also answering phones and checking in visitors. Baby is fussy despite being swaddled in blanket and sucking on a pacifier while in her bassinet. Baby has not slept for more than 15-20 min. at a time. Has a hard time keeping pacifier in her mouth due to excessive rooting on blanket. Startles out of sleep with disturbed tremors and exaggerated Moro. Bottle-feeds 15 mL of formula within 10 min. after taking 5 min. to coordinate feeding. Baby fusses frequently and is only able to stay consoled for a few minutes in bassinet. The nurse's aide was unable to hold baby as she needed to help with 2 new mom-baby admissions. Baby calmed briefly when aide would jiggle the bassinet between other tasks, but cried again as soon as movement was stopped. At the time of this assessment, the mother has just returned and is eager to hold her baby skin-to-skin.

Time 3 (30 hrs. of life)

Mom now back in room with baby, and mom is sleepy after first dose of methadone medication-assisted treatment. Mom unable to hold baby as she is worried about falling asleep; called for staff to help. No staff available to help because there are now 5 new admissions in active labor. Baby fussy, unable to stay asleep for more than 20 min. at a time because startling self out of sleep, even though room is quiet. Baby is safely/effectively swaddled in a blanket and is sucking a pacifier. Mom tries to console baby while in bassinet but mom keeps drifting off to sleep. Baby consoles within a few min. when mom "shooshes" baby and jiggles her back and forth, but baby will not stay consoled for more than 5 min. because mom falls asleep and stops jiggling/shooshing noise. Drinks bottle readily when mom offers it, taking 30 mL in 5-10 min. and then pushes nipple out of mouth. When mom tries to offer more, baby grimaces and bites down on nipple. Mom reviews the ESC pamphlet and cannot think of anything else to try to soothe her baby. She calls again for the nurse. The nurse comes quickly, and says she cannot think of anything else either.

Perform assessment of ESC behaviors, signs of withdrawal, and NPIs for time period since last ESC assessment	Time 1	Time 2	Time 3
NOWS/NAS ASSESSMENT			
Are signs of withdrawal present? (e.g., hyperactive moro, tremors/jitteriness, increased tone, excessive/disorganized suck) Yes / No			
If Yes, is timing of withdrawal consistent with known opioid exposure? Yes / No / Unsure			
Are co-exposures present that may be contributing to signs of withdrawal? Yes / No / Unsure (please list co-exposures)			
Are NPIs maximized to fullest extent possible in infant's clinical setting? Yes / No / Unsure			
EATING			
Takes > 10 min to coordinate feeding *or* **breastfeeds < 10 min** *or* **feeds < 10 mL** (*or* other age-appropriate duration/volume) **due to NOWS/NAS?** Yes / No			
SLEEPING			
Sleeps < 1 hr due to NOWS/NAS? Yes / No			
CONSOLING			
Takes > 10 min to console (*or* **cannot stay consoled for** ***at least*** **10 min) due to NOWS/NAS?** Yes / No			
Consoling Support Needed **1:** Able to console on own **2:** Able to console within (and stay consoled for) 10 min with caregiver support **3:** Takes > 10 min to console (*or* cannot stay consoled for *at least* 10 min) despite caregiver's best efforts			
CARE PLAN			
Formal Parent/Caregiver Huddle Performed to formally review NPIs to be increased further? Yes / No			
Full Care Team Huddle Performed to formally consider all possible etiologies for symptoms, re-assess if NPIs are maximized to fullest extent possible, and determine if NOWS/NAS medication treatment is needed? Yes / No			
Management Decision **a: Continue/Optimize NPIs** **b: Initiate NOWS/NAS Medication Treatment** (e.g., if baby's symptoms & timing of symptoms are consistent with mother's particular opioid *and* NPIs are maximized to fullest extent possible in infant's clinical setting, *OR* other significant NOWS/NAS concerns are present (e.g., seizures, apnea)) – please list medication(s) initiated **c: Continue NOWS/NAS Medication Treatment** **d: Other** (please describe – e.g., Start 2nd Pharmacologic Agent (indicate name); Wean or Discontinue Medication Treatment)			
PARENT/CAREGIVER PRESENCE SINCE LAST ASSESSMENT			
> 3 hours (includes if parent/caregiver present entire time), **2-3 hours**, **1-2 hours**, **< 1 hour**, **0 hours** (no parent/caregiver present)			
NON-PHARM CARE INTERVENTIONS (I = Increase Now, **R** = Reinforce, **E** = Educate for Future, **NA** = Not Applicable/Available)			
Rooming-in (i.e., caring for infant in their own room with earlier caregiver response to infant stress or hunger cues)			
Parent/caregiver presence to help calm and care for infant			
Skin-to-skin contact when caregiver fully awake/alert to help organize infant feeding behaviors, calming & sleep			
Holding by parent/caregiver/cuddler to help calm infant & aid in sleep (with caregiver fully awake/alert)			
Safe & effective swaddling (e.g., extremities swaddled in flexed position, blanket snug, no extra blanket around baby's face)			
Optimal feeding (e.g., baby offered feedings when showing hunger cues & fed till content)			
Non-nutritive sucking with infant's hand, pacifier, adult caregiver's washed or gloved finger			
Quiet, low light environment to help limit overstimulation of infant (e.g., tv volume down, quiet "white noise" machine or phone app)			
Rhythmic movement provided by parent/caregiver or infant calming device (e.g., "jiggling" or infant swing in presence of alert adult)			
Additional help/support in room (e.g., other parent, family member, friend, cuddler, staff member, recovery coach, DCYF worker)			
Limiting # of visitors & duration of visit(s) to minimize disruptions in infant's care environment & sleep			
Clustering care & assessments with infant's awake times (e.g., RN & infant provider perform assessment together after infant feedings)			
Safe sleep/fall prevention (e.g., infant sleeps on back, safely swaddled, in own sleep space)			
Parent/caregiver self-care & rest (e.g., identifying another adult to care for infant so parent can rest or take a walk/break)			
Optional Comments: (e.g., staff caring for/consoling baby as parents not available or able to safely care for baby)			

Definitions

EATING
• **Takes > 10 min to coordinate feeding** *or* **breastfeeds < 10 min** *or* **feeds < 10 mL** (*or* other age-appropriate duration/volume) **due to NOWS/NAS?:** Baby **unable to coordinate feeding *within* 10 minutes of showing hunger** *OR* **sustain feeding for *at least* 10 minutes at breast** *OR* **with 10 mL by alternate feeding method** (*or other age-appropriate duration/volume)* **due to opioid withdrawal symptoms** (e.g., fussiness, tremors, uncoordinated suck, excessive rooting).
• ***Special Note:* Do not indicate Yes** if poor eating is **clearly due to non-opioid related factors** (e.g., prematurity, transitional sleepiness or spittiness in first 24 hours, inability to latch due to infant/maternal anatomical factors).
SLEEPING
• **Sleeps < 1 hour due to NOWS/NAS:** Baby **unable to sleep for *at least* one hour**, after feeding well, **due to opioid withdrawal symptoms** (e.g., fussiness, restlessness, increased startle, tremors).
• ***Special Note:* Do not indicate Yes** if sleep < 1 hour is **clearly due to non-opioid related factors** (e.g., symptoms in first day likely due to nicotine or SSRI withdrawal, physiologic cluster feeding in first few days of life, interruptions in sleep for routine newborn testing).
CONSOLING
• **Takes > 10 min to console (*or* cannot stay consoled for *at least* 10 min) due to NOWS/NAS:** Baby **takes longer than 10 minutes to console** *OR* **cannot stay consoled for *at least* 10 minutes (due to opioid withdrawal symptoms) despite** infant caregiver/provider's **best efforts to implement NPIs** (e.g., skin-to-skin contact, non-nutritive sucking when baby not hungry).
• ***Special Note:* Do not indicate Yes** if infant's difficulties consoling are clearly **due to non-opioid related factors** (e.g., caregiver non-responsiveness to infant hunger cues, circumcision pain).
CONSOLING SUPPORT NEEDED
1. **Able to console on own:** Able to console on own without any caregiver support needed.
2. **Able to console within (and stay consoled for) 10 min with caregiver support:** Baby with absence of crying, grimacing, or other signs of distress while being held (or otherwise consoled) by a caregiver.
3. **Takes > 10 min to console (*or* cannot stay consoled for *at least* 10 min) despite caregiver's best efforts:** Baby with presence of crying, grimacing, squirming/tensing, or other signs of distress despite a caregiver's best efforts to implement recommended NPIs (e.g., parent/caregiver presence, skin-to-skin, holding, safe swaddling, optimal feeding, non-nutritive sucking when not hungry).

CARE PLAN
• **Formal Parent/Caregiver Huddle**: **RN bedside huddle** with **parent/caregiver** to ***formally* review NPIs that can be optimized** ("Increased") **further to help with infant's current eating, sleeping, and/or consoling difficulties**. To be performed if infant receives **Yes** for any **ESC** item ***or* 3** for **Consoling Support Needed**.
• **Full Care Team Huddle: Formal huddle** with **parent/caregiver**, **infant RN** *and* **physician or associate provider** to 1) **consider all potential etiologies** for symptoms, 2) **re-assess if NPIs** are **maximized** to fullest extent possible in infant's clinical setting, and 3) **determine if NOWS medication treatment is needed**. To be performed if infant **receives 2nd Yes in a row** for **any single ESC** item **(*or* 2nd "3"** for **Consoling Support Needed)** despite **maximal non-pharm care** *OR* ***other significant concerns*** are present**.**

PARENT/CAREGIVER PRESENCE SINCE LAST ASSESSMENT: Time (in hours) since last assessment that parent (or other caregiver) spent together with infant in own room *or* in Nursery.

OPTIMAL FEEDING:
• **Baby feeding at early hunger cues** and **until content** without any limit placed on duration or volume of feeding. Feedings are encouraged **at least every 3 hours, optimally 8-12 times per day**, to ensure baby does not become too hungry or disorganized with feeding and to optimize nutritional intake. A baby may remain sleeping for more than 3 hours *for therapeutic rest* if feeding difficulties or excessive weight loss are *not* present. If a pacifier is used, it should be introduced only after a baby has been fed or offered a feeding. As infants with NOWS/NAS may have poor feeding, have excessive/watery stools, or be hypermetabolic, **closely follow daily weights** and **provide increased volume and/or caloric density** of feedings, as needed, **for more than expected weight loss** *and/or* **poor weight gain for age.**
• **Breastfeeding:** Baby latching deeply with comfortable latch for mother, and sustained active suckling for baby with only brief pauses noted. **If feeding difficulties present**: a) **assist directly with breastfeeding** to help achieve more optimal latch and position, b) **demonstrate hand expression** and have mother **express colostrum prior to and/or during feedings**, and/or c) have baby feed on a clean or gloved adult finger first to **organize suck prior to latching**. As able based on infant's symptoms, consider withholding pacifiers until babies are breastfeeding well due to the potential to interfere with a good latch/suck. Consider use of nipple shield to facilitate palatal stimulation, or supplementation at the breast (as tolerated by mother), if infant requires assistance to maintain latch/suck.
• **Bottle feeding:** Baby effectively coordinating suck and swallow without gagging or excessive spitting up. **If feeding difficulties are present:** a) **assess need for altered nipple shape/flow rate**, b) instruct parent to **provide chin support during feedings**, *and/or* c) **modify position of bottle and flow of milk** to assist baby with feeding (e.g., modified side-lying position).
• **Consult a feeding specialist** (e.g., lactation, speech therapy, feeding team) when **feeding difficulties are present**.

Written Case 8 and Rating Key for Time 1

24-hr. old, full-term, baby girl, small for gestational age, born to 20-year-old woman who presented to emergency department with abdominal pain and found to be in labor. Delivered precipitously in emergency department not long after. Mom unaware of pregnancy; using heroin, cigarettes, and marijuana up until the delivery. Lives alone. No family in area. Does not know who father of the baby is. Transferred to the birthing unit for postpartum care; both mom and baby stable. Blood sugars and temperatures normal since birth.

Time 1 (24 hrs. of life)

Mom present in room entire time, holding baby when she is awake. Baby fussy with tremors and exaggerated Moro with any noise able to calm within approximately 5 min. and remain calm. Able to sleep for 2 hrs. while held. When baby woke up, was excessively rooting making it hard for mom to get bottle in baby's mouth. Last feeding approximately 3 hrs. ago. After 15 min. of trying, baby able to take 15 mL of formula. Mom keeping room calm; no visitors are present. RN performed assessment and vital signs 4 hrs. after last assessment.

Time 2 (27 hrs. of life)

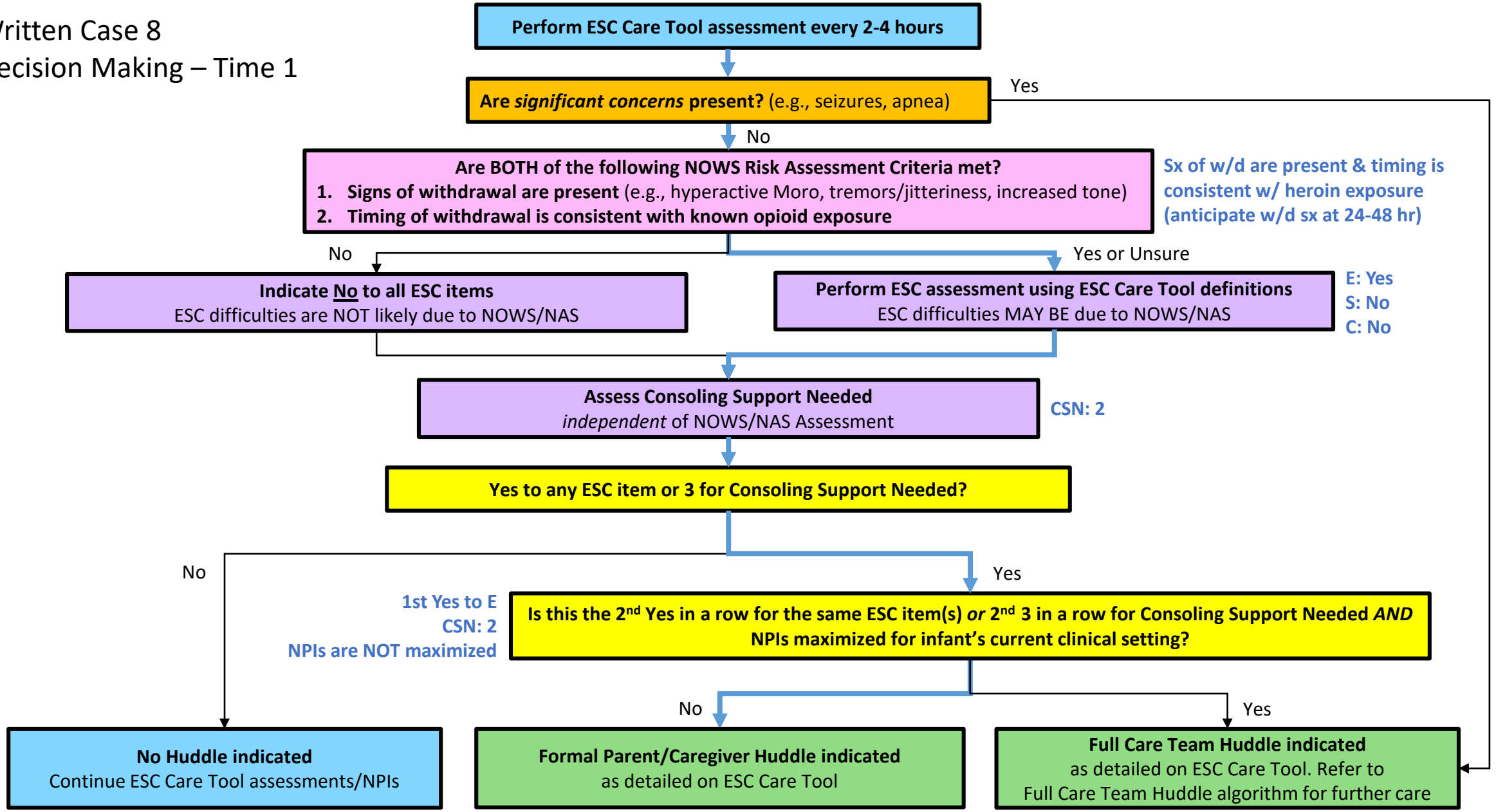
During past 3 hrs., mom off unit for smoking break and then trip to methadone treatment center for new intake visit. No family available to keep baby in room. Baby in nursery and being watched by a nurse's aide who is also answering phones and checking in visitors. Baby is fussy despite being swaddled in blanket and sucking on a pacifier while in her bassinet. Baby has not slept for more than 15-20 min. at a time. Has a hard time keeping pacifier in her mouth due to excessive rooting on blanket. Startles out of sleep with disturbed tremors and exaggerated Moro. Bottle-feeds 15 mL of formula within 10 min. after taking 5 min. to coordinate feeding. Baby fusses frequently and is only able to stay consoled for a few minutes in bassinet. The nurse's aide was unable to hold baby as she needed to help with 2 new mom-baby admissions. Baby calmed briefly when aide would jiggle the bassinet between other tasks, but cried again as soon as movement was stopped. At the time of this assessment, the mother has just returned and is eager to hold her baby skin-to-skin.

Time 3 (30 hrs. of life)

Mom now back in room with baby, and mom is sleepy after first dose of methadone medication-assisted treatment. Mom unable to hold baby as she is worried about falling asleep; called for staff to help. No staff available to help because there are now 5 new admissions in active labor. Baby fussy, unable to stay asleep for more than 20 min. at a time because startling self out of sleep, even though room is quiet. Baby is safely/effectively swaddled in a blanket and is sucking a pacifier. Mom tries to console baby while in bassinet but mom keeps drifting off to sleep. Baby consoles within a few min. when mom "shooshes" baby and jiggles her back and forth, but baby will not stay consoled for more than 5 min. because mom falls asleep and stops jiggling/shooshing noise. Drinks bottle readily when mom offers it, taking 30 mL in 5-10 min. and then pushes nipple out of mouth. When mom tries to offer more, baby grimaces and bites down on nipple. Mom reviews the ESC pamphlet and cannot think of anything else to try to soothe her baby. She calls again for an ESC assessment clustered after feeding. She calls again for the nurse. The nurse comes quickly, and says she cannot think of anything else either.

Perform assessment of ESC behaviors, signs of withdrawal, and NPIs for time period since last ESC assessment	Time 1
NOWS/NAS ASSESSMENT	
Are signs of withdrawal present? *Yes – Tremors, hyperactive moro, fussy, excessive rooting*	Y
If Yes, is timing of withdrawal consistent with known opioid exposure? *Yes – Heroin w/d expected to start at 24 hr*	Y
Are co-exposures present that may be contributing to signs of withdrawal? *Yes – Mom also smokes cigarettes*	Y
Are NPIs maximized to fullest extent possible in infant's clinical setting?	N
EATING	
Takes > 10 min to coordinate feeding *or* breastfeeds < 10 min *or* feeds < 10 mL (*or* other age-appropriate duration/volume) due to NOWS/NAS? Yes / No	Y
SLEEPING	
Sleeps < 1 hr due to NOWS/NAS? Yes / No	N
CONSOLING	
Takes > 10 min to console (*or* cannot stay consoled for *at least* 10 min) due to NOWS/NAS? Yes / No	N
Consoling Support Needed 1: Able to console on own 2: Able to console within (and stay consoled for) 10 min with caregiver support 3: Takes > 10 min to console (*or* cannot stay consoled for *at least* 10 min) despite caregiver's best efforts	2
CARE PLAN	
Formal Parent/Caregiver Huddle Performed to formally review NPIs to be increased further? *Time 3 – NA as FCTH indicated*	Y
Full Care Team Huddle Performed to formally consider all possible etiologies for symptoms, re-assess if NPIs are maximized to fullest extent possible, and determine if NOWS/NAS medication treatment is needed? Yes / No	N
Management Decision a: Continue/Optimize NPIs b: Initiate NOWS/NAS Medication Treatment c: Continue NOWS/NAS Medication Treatment d: Other *** *Consulted MSW, Charge RN, Hospital Nursing Supervisor, Baby's Attending to discuss optimal site of care & need to id additional help/support for baby & mom; will trial dose of sucrose solution w/ pacifier & reassess in 30 min, will give morphine x 1 dose if sx not improved*	a + d
PARENT/CAREGIVER PRESENCE SINCE LAST ASSESSMENT	
> 3 hours (includes if parent/caregiver present entire time), 2-3 hours, 1-2 hours, < 1 hour, 0 hours (no parent/caregiver present)	> 3
NON-PHARM CARE INTERVENTIONS (I = Increase Now, R = Reinforce, E = Educate for Future, NA = Not Applicable/Available)	
Rooming-in (i.e., caring for infant in their own room with earlier caregiver response to infant stress or hunger cues)	R
Parent/caregiver presence to help calm and care for infant	R
Skin-to-skin contact – *Time 3:"Not attainable" - mom sleepy after methadone dose so not safe to hold baby; no other help available*	I
Holding by parent/caregiver/cuddler to help calm infant & aid in sleep (with caregiver fully awake/alert)	R/E
Safe & effective swaddling (e.g., extremities swaddled in flexed position, blanket snug, no extra blanket around baby's face)	R
Optimal feeding - *Time 3: Talked to mom about possibly needing to slow infant's feeding down in future if taking in too quickly*	I
Non-nutritive sucking - *Time 3: Consider trial of sucrose solution on pacifier while trying to mobilize additional help/considering medication & best location for infant*	I
Quiet, low light environment to help limit overstimulation of infant (e.g., tv volume down, quiet "white noise" machine/phone app)	R
Rhythmic movement - *Reinforced mom's jiggling of baby; unable to use infant calming device as no awake/alert caregiver available*	E
Additional help/support in room (e.g., other parent, family member, friend, cuddler, staff member, recovery coach, DCYF worker)	I
Limiting # of visitors & duration of visit(s) – *Mom has no family/friend support available*	NA
Clustering care & assessments with infant's awake times (e.g., RN & infant provider perform assessment together after infant feedings)	I
Safe sleep/fall prevention – *Time 3: Reinforced mom placing baby in bassinet so that her baby is safe while she is sleepy*	R/E
Parent/caregiver self-care & rest – *Time 3: Mom doing best to get rest, awakens when baby does; will still try to id another support*	R/E
Optional Comments: ****Baby rooming-in but mom falling asleep, trying to care for baby in bassinet, no immediate help available*	

Written Case 8
Decision Making – Time 1



Written Case 8 and Rating Key for Time 2

24-hr. old, full-term, baby girl, small for gestational age, born to 20-year-old woman who presented to emergency department with abdominal pain and found to be in labor. Delivered precipitously in emergency department not long after. Mom unaware of pregnancy; using heroin, cigarettes, and marijuana up until the delivery. Lives alone. No family in area. Does not know who father of the baby is. Transferred to the birthing unit for postpartum care; both mom and baby stable. Blood sugars and temperatures normal since birth.

Time 1 (24 hrs. of life)

Mom present in room entire time, holding baby when she is awake. Baby fussy with tremors and exaggerated Moro with any noise able to calm within approximately 5 min. and remain calm. Able to sleep for 2 hrs. while held. When baby woke up, was excessively rooting making it hard for mom to get bottle in baby's mouth. Last feeding approximately 3 hrs. ago. After 15 min. of trying, baby able to take 15 mL of formula. Mom keeping room calm; no visitors are present. RN performed assessment and vital signs 4 hrs. after last assessment.

Time 2 (27 hrs. of life)

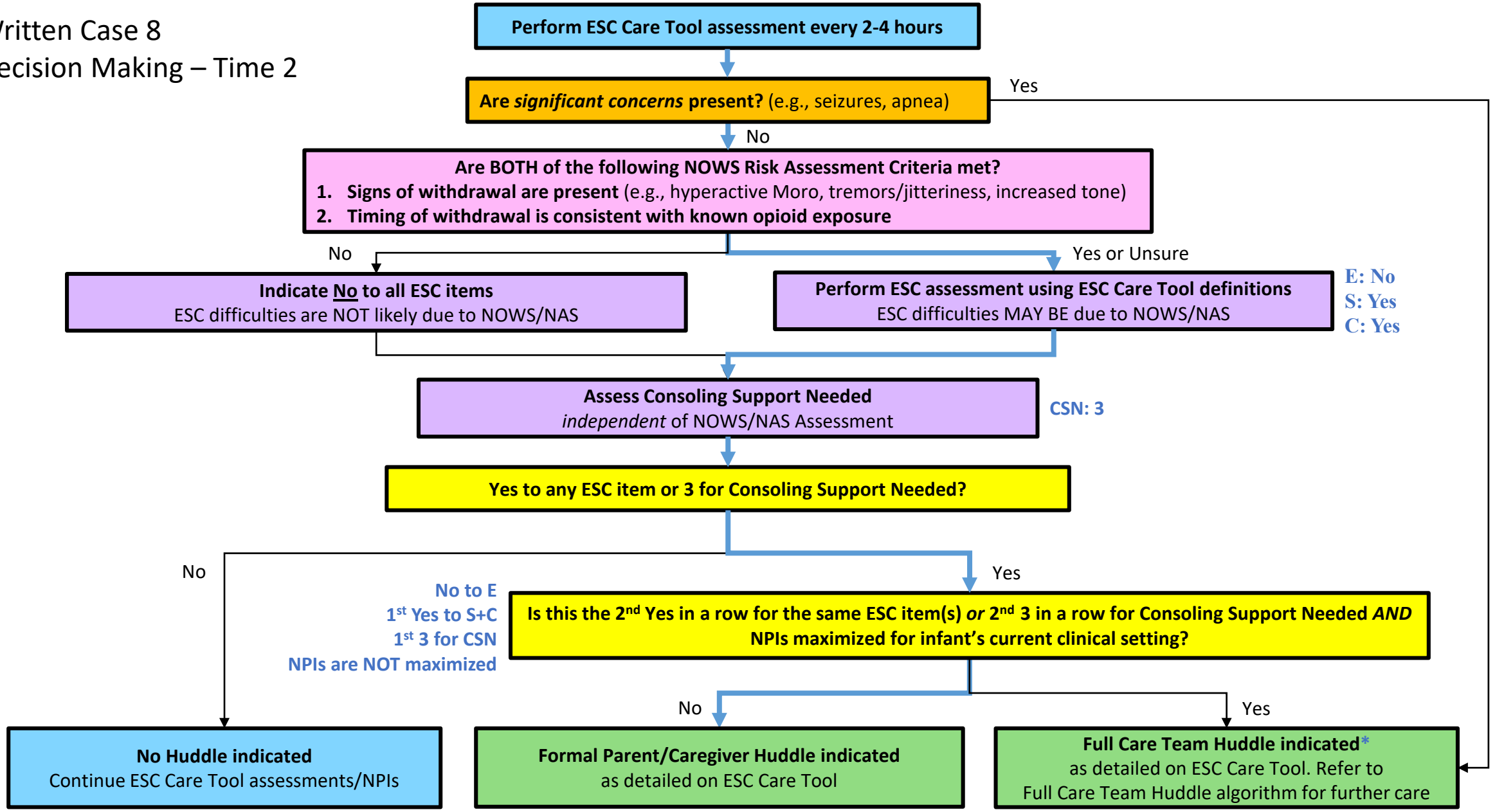
During past 3 hrs., mom off unit for smoking break and then trip to methadone treatment center for new intake visit. No family available to keep baby in room. Baby in nursery and being watched by a nurse's aide who is also answering phones and checking in visitors. Baby is fussy despite being swaddled in blanket and sucking on a pacifier while in her bassinet. Baby has not slept for more than 15-20 min. at a time. Has a hard time keeping pacifier in her mouth due to excessive rooting on blanket. Startles out of sleep with disturbed tremors and exaggerated Moro. Bottle-feeds 15 mL of formula within 10 min. after taking 5 min. to coordinate feeding. Baby fusses frequently and is only able to stay consoled for a few minutes in bassinet. The nurse's aide was unable to hold baby as she needed to help with 2 new mom-baby admissions. Baby calmed briefly when aide would jiggle the bassinet between other tasks, but cried again as soon as movement was stopped. At the time of this assessment, the mother has just returned and is eager to hold her baby skin-to-skin.

Time 3 (30 hrs. of life)

Mom now back in room with baby, and mom is sleepy after first dose of methadone medication-assisted treatment. Mom unable to hold baby as she is worried about falling asleep; called for staff to help. No staff available to help because there are now 5 new admissions in active labor. Baby fussy, unable to stay asleep for more than 20 min. at a time because startling self out of sleep, even though room is quiet. Baby is safely/effectively swaddled in a blanket and is sucking a pacifier. Mom tries to console baby while in bassinet but mom keeps drifting off to sleep. Baby consoles within a few min. when mom "shooshes" baby and jiggles her back and forth, but baby will not stay consoled for more than 5 min. because mom falls asleep and stops jiggling/shooshing noise. Drinks bottle readily when mom offers it, taking 30 mL in 5-10 min. and then pushes nipple out of mouth. When mom tries to offer more, baby grimaces and bites down on nipple. Mom reviews the ESC pamphlet and cannot think of anything else to try to soothe her baby. She calls again for the nurse. The nurse comes quickly, and says she cannot think of anything else either.

Perform assessment of ESC behaviors, signs of withdrawal, and NPIs for time period since last ESC assessment	Time 1	Time 2
NOWS/NAS ASSESSMENT		
Are signs of withdrawal present? *Yes – Tremors, hyperactive moro, fussy, excessive rooting*	Y	Y
If Yes, is timing of withdrawal consistent with known opioid exposure? *Yes – Heroin w/d expected to start at 24 hr*	Y	Y
Are co-exposures present that may be contributing to signs of withdrawal? *Yes – Mom also smokes cigarettes*	Y	Y
Are NPIs maximized to fullest extent possible in infant's clinical setting?	N	N
EATING		
Takes > 10 min to coordinate feeding *or* breastfeeds < 10 min *or* feeds < 10 mL (*or* other age-appropriate duration/volume) due to NOWS/NAS? Yes / No	Y	N
SLEEPING		
Sleeps < 1 hr due to NOWS/NAS? Yes / No	N	Y
CONSOLING		
Takes > 10 min to console (*or* cannot stay consoled for *at least* 10 min) due to NOWS/NAS? Yes / No	N	Y
Consoling Support Needed 1: Able to console on own 2: Able to console within (and stay consoled for) 10 min with caregiver support 3: Takes > 10 min to console (*or* cannot stay consoled for *at least* 10 min) despite caregiver's best efforts	2	3
CARE PLAN		
Formal Parent/Caregiver Huddle Performed to formally review NPIs to be increased further? *Time 3 – NA as FCTH indicated*	Y	Y
Full Care Team Huddle Performed to formally consider all possible etiologies for symptoms, re-assess if NPIs are maximized to fullest extent possible, and determine if NOWS/NAS medication treatment is needed? Yes / No	N	N
Management Decision a: Continue/Optimize NPIs b: Initiate NOWS/NAS Medication Treatment c: Continue NOWS/NAS Medication Treatment d: Other *** *Consulted MSW, Charge RN, Hospital Nursing Supervisor, Baby's Attending to discuss optimal site of care & need to id additional help/support for baby & mom; will trial dose of sucrose solution w/ pacifier & reassess in 30 min, will give morphine x 1 dose if sx not improved*	a + d	a + d
PARENT/CAREGIVER PRESENCE SINCE LAST ASSESSMENT		
> 3 hours (includes if parent/caregiver present entire time), **2-3 hours**, **1-2 hours**, **< 1 hour**, **0 hours** (no parent/caregiver present)	> 3	0 In Nursery
NON-PHARM CARE INTERVENTIONS (I = Increase Now, R = Reinforce, E = Educate for Future, NA = Not Applicable/Available)		
Rooming-in (i.e., caring for infant in their own room with earlier caregiver response to infant stress or hunger cues)	R	I
Parent/caregiver presence to help calm and care for infant	R	I
Skin-to-skin contact – *Time 3:"Not attainable" - mom sleepy after methadone dose so not safe to hold baby; no other help available*	I	I
Holding by parent/caregiver/cuddler to help calm infant & aid in sleep (with caregiver fully awake/alert)	R/E	I
Safe & effective swaddling (e.g., extremities swaddled in flexed position, blanket snug, no extra blanket around baby's face)	R	R/I
Optimal feeding - *Time 3: Talked to mom about possibly needing to slow infant's feeding down in future if taking in too quickly*	I	R/E
Non-nutritive sucking - *Time 3: Consider trial of sucrose solution on pacifier while trying to mobilize additional help/considering medication & best location for infant*	I	R
Quiet, low light environment to help limit overstimulation of infant (e.g., tv volume down, quiet "white noise" machine/phone app)	R	I
Rhythmic movement - *Reinforced mom's jiggling of baby; unable to use infant calming device as no awake/alert caregiver available*	E	I
Additional help/support in room (e.g., other parent, family member, friend, cuddler, staff member, recovery coach, DCYF worker)	I	I
Limiting # of visitors & duration of visit(s) – *Mom has no family/friend support available*	NA	NA
Clustering care & assessments with infant's awake times (e.g., RN & infant provider perform assessment together after infant feedings)	I	R/E
Safe sleep/fall prevention – *Time 3: Reinforced mom placing baby in bassinet so that her baby is safe while she is sleepy*	R/E	E
Parent/caregiver self-care & rest – *Time 3: Mom doing best to get rest, awakens when baby does; will still try to id another support*	R/E	E
Optional Comments: ****Baby rooming-in but mom falling asleep, trying to care for baby in bassinet, no immediate help available*		

Written Case 8
Decision Making – Time 2



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Mom present in room entire time, holding baby when she is awake. Baby fussy with tremors and exaggerated Moro with any noise. Able to calm within approximately 5 min. and stay calm with swaddling and holding. Able to sleep for 2 hrs. while being held. When baby woke up, she was excessively rooting making it hard for mom to get bottle in baby's mouth. Last feeding approximately 3 hrs. ago. After 15 min. of trying, baby able to take 15 mL of formula. Mom keeping room calm; no visitors are present. RN performed assessment and vital signs 4 hrs. after last assessment.

Time 2 (27 hrs. of life)

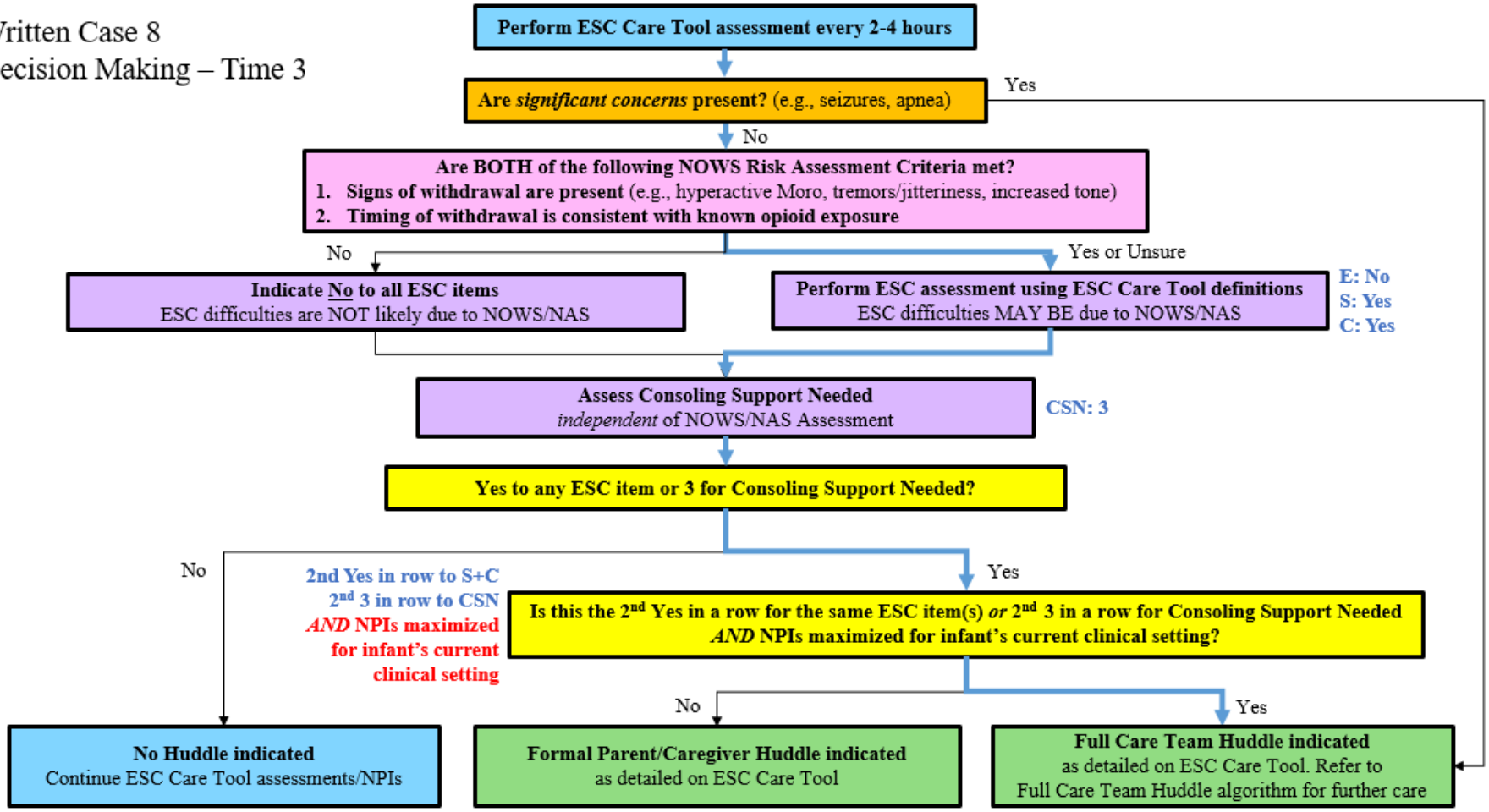
During past 3 hrs., mom off unit for smoking break and then trip to methadone treatment center for new intake visit. No family available to keep baby in room. Baby in nursery and being watched by a nurse's aide who is also answering phones and checking in visitors. Baby is fussy despite being swaddled in blanket and sucking on a pacifier while in her bassinet. Baby has not slept for more than 15-20 min. at a time. Has a hard time keeping pacifier in her mouth due to excessive rooting on blanket. Startles out of sleep with disturbed tremors and exaggerated Moro. Bottle-feeds 15 mL of formula within 10 min. after taking 5 min. to coordinate feeding. Fusses frequently and is only able to stay consoled for a few in bassinet. The nurse's aide was unable to hold baby because she needed to help with 2 new mom-baby admissions. Baby calmed briefly when the aide would jiggle the bassinet between other tasks, but cried again as soon as the movement stopped. At the time of this assessment, the mother has just returned and is eager to hold her baby skin-to-skin.

Time 3 (30 hrs. of life)

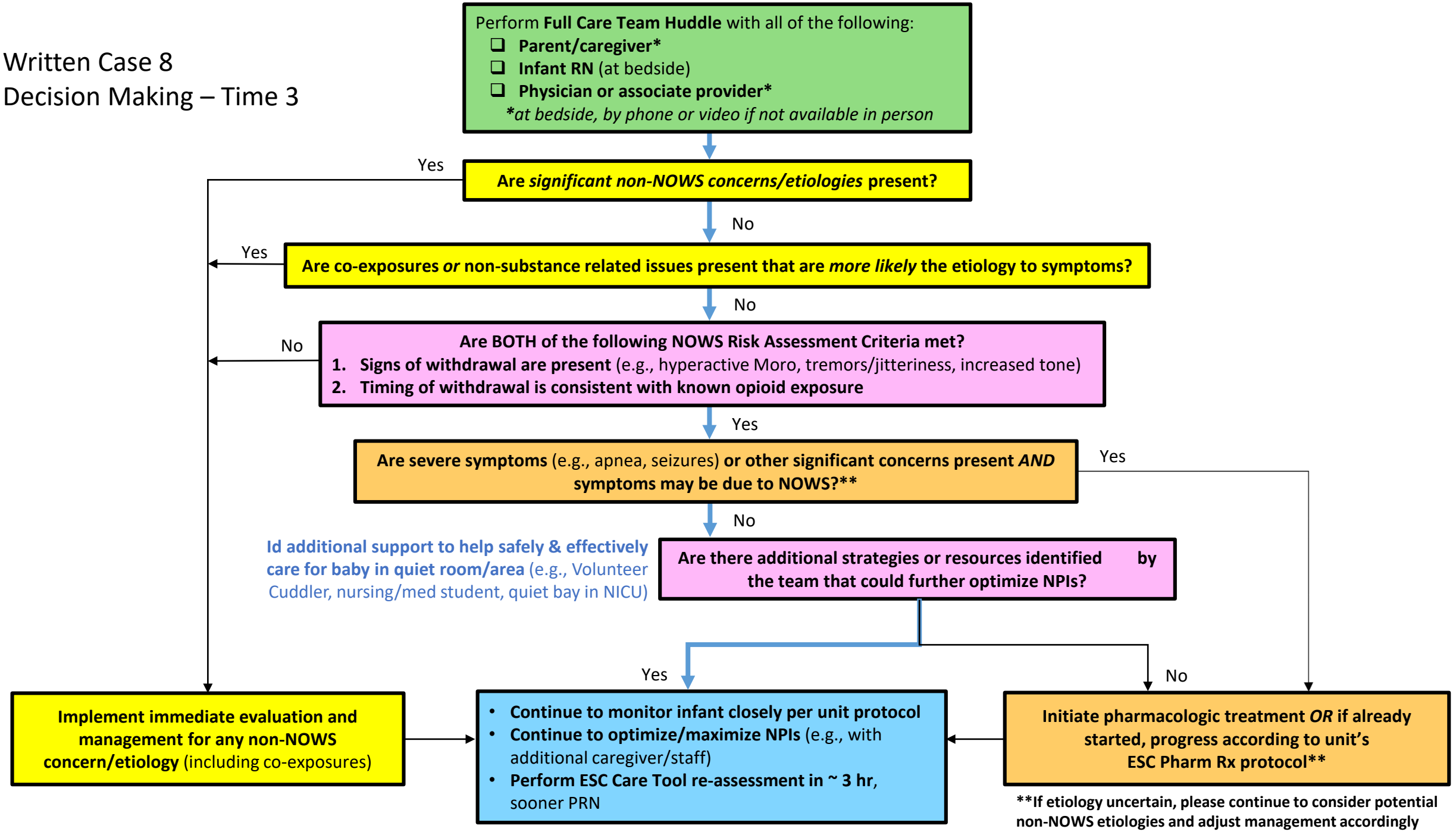
Mom now back in room with baby, and mom is sleepy after first dose of methadone medication-assisted treatment. Mom unable to hold baby as she is worried about falling asleep; called for staff to help. No staff available to help because there are now 5 new admissions in active labor. Baby fussy, unable to stay asleep for more than 20 min. at a time because startling self out of sleep, even though room is quiet. Baby is safely/effectively swaddled in a blanket and is sucking a pacifier. Mom tries to console baby while in bassinet but mom keeps drifting off to sleep. Baby consoles within a few min. when mom "shooshes" baby and jiggles her back and forth, but baby will not stay consoled for more than 5 min. because mom falls asleep and stops jiggling/shooshing noise. Drinks bottle readily when mom offers it, taking 30 mL in 5-10 min. and then pushes nipple out of mouth. When mom tries to offer more, baby grimaces and bites down on nipple. Mom reviews the ESC pamphlet and cannot think of anything else to try to soothe her baby. She calls again for the nurse. The nurse comes quickly, and says she cannot think of anything else either.

Perform assessment of ESC behaviors, signs of withdrawal, and NPIs for time period since last ESC assessment	Time 1	Time 2	Time 3
NOWS/NAS RISK ASSESSMENT			
Are signs of withdrawal present? (e.g., hyperactive Moro, tremors/jitteriness, increased tone, excessive/disorganized suck) Yes / No	Y	Y	Y
If Yes, is timing of withdrawal consistent with known opioid exposure? Yes / No / Unsure	Y	Y	Y
Are co-exposures present that may be contributing to signs of withdrawal? Yes / No / Unsure (please list co-exposures)	Y	Y	Y
Are NPIs maximized to fullest extent possible in infant's clinical setting? Yes / No / Unsure	N	N	Y
EATING			
Takes > 10 min to coordinate feeding *or* **breastfeeds < 10 min** *or* **feeds < 10 mL** (*or* other age-appropriate duration/volume) **due to NOWS/NAS?** Yes / No	Y	N	N
SLEEPING			
Sleeps < 1 hr due to NOWS/NAS? Yes / No	N	Y	Y
CONSOLING			
Takes > 10 min to console (*or* **cannot stay consoled for** ***at least*** **10 min) due to NOWS/NAS?** Yes / No	N	Y	Y
Consoling Support Needed **1:** Able to console on own **2:** Able to console within (and stay consoled for) 10 min with caregiver support **3:** Takes > 10 min to console (*or* cannot stay consoled for *at least* 10 min) despite caregiver's best efforts	2	3	3
CARE PLAN			
Formal Parent/Caregiver Huddle Performed to formally review NPIs to be increased further? Yes / No	Y	Y	NA
Full Care Team Huddle Performed to formally consider all possible etiologies for symptoms, re-assess if NPIs are maximized to fullest extent possible, and determine if NOWS/NAS medication treatment is needed? Yes / No	N	N	Y
Management Decision **a: Continue/Optimize NPIs** **b: Initiate NOWS/NAS Medication Treatment** (e.g., if baby's symptoms & timing of symptoms are consistent with mother's particular opioid *and* NPIs are maximized to fullest extent possible in infant's clinical setting, *OR* other significant NOWS/NAS concerns are present (e.g., seizures, apnea)) – please list medication(s) initiated **c: Continue NOWS/NAS Medication Treatment** **d: Other** (please describe – e.g., Start 2'° Pharmacologic Agent (indicate name); Wean or Discontinue Medication	a+d	a+d	a+b?+ d***
PARENT/CAREGIVER PRESENCE SINCE LAST ASSESSMENT			
> 3 hours (includes if parent/caregiver present entire time), **2-3 hours**, **1-2 hours**, **< 1 hour**, **0 hours** (no parent/caregiver present)	>3	0 In nursery	>3
NON-PHARM CARE INTERVENTIONS (I = Increase Now, **R** = Reinforce, **E** = Educate for Future, **NA** = Not Applicable/Available)			
Rooming-in (i.e., caring for infant in their own room with earlier caregiver response to infant stress or hunger cues)	R	I	***
Parent/caregiver presence to help calm and care for infant	R	I	R
Skin-to-skin contact when caregiver fully awake/alert to help organize infant feeding behaviors, calming & sleep	I	I	NA
Holding by parent/caregiver/cuddler to help calm infant & aid in sleep (with caregiver fully awake/alert)	R/E	I	I
Safe & effective swaddling (e.g., extremities swaddled in flexed position, blanket snug, no extra blanket around baby's face)	R	R/I	R
Optimal feeding (e.g., baby offered feedings when showing hunger cues & fed till content)	I	R/E	R/E
Non-nutritive sucking with infant's hand, pacifier, adult caregiver's washed or gloved finger	I	R	R/I?
Quiet, low light environment to help limit overstimulation of infant (e.g., tv volume down, quiet "white noise" machine or phone app)	R	I	R
Rhythmic movement provided by parent/caregiver or infant calming device (e.g., "jiggling" or infant swing in presence of alert adult)	E	I	R/I
Additional help/support in room (e.g., other parent, family member, friend, cuddler, staff member, recovery coach, DCYF worker)	I	I	I
Limiting # of visitors & duration of visit(s) to minimize disruptions in infant's care environment & sleep	NA	NA	NA
Clustering care & assessments with infant's awake times (e.g., RN & infant provider perform assessment together after infant feedings)	I	R/E	R/I
Safe sleep/fall prevention (e.g., infant sleeps on back, safely swaddled, in own sleep space)	R/E	E	R
Parent/caregiver self-care & rest (e.g., identifying another adult to care for infant so parent can rest or take a walk/break)	R/E	E	R/I

Written Case 8
Decision Making – Time 3



Written Case 8
Decision Making – Time 3



Written Case 8 Teaching Script

TIME 1

NOWS/NAS Assessment

Are symptoms (sx) of withdrawal (w/d) present? Yes – Tremors, hyperactive Moro, fussiness, excessive rooting.

If yes, is timing consistent with opioid exposure? Yes – Heroin is a short-acting agent, w/d sx will generally start at 24 hrs. (sometimes sooner), peak during the next few days, and then usually improve by approximately 48 hrs. If any ESC difficulties are present and thought related to w/d because timing is consistent with mom's opioid use, one should answer Yes to that particular ESC difficulty, *unless* it is clear that the difficulties are due to non-opioid related factors.

Are co-exposures present that may contribute to w/d sx? Yes – Mom using nicotine up until delivery. Acute sx related to nicotine are typically seen in the first 24 hrs., peak by approximately 24-48 hrs., and start to improve by 48 hrs. Sx from nicotine are predominantly characterized by tremor, irritability, and hypertonicity; excessive rooting is not anticipated to be a nicotine-related effect. The baby's current sx are assessed as more likely due to heroin w/d than co-exposure w/ nicotine. While co-exposures may also contribute at this point in time, the presence of w/d symptoms consistent with NOWS and timing of w/d consistent with the known opioid exposure are sufficient to consider whether any ESC difficulties may be related to NOWS.

Are non-pharm care interventions (NPIs) maximized to fullest extent possible in infant's clinical setting? No

Eating, Sleeping, and Consoling (ESC) Assessment

Eating: Yes –Although ultimately able to feed 15 mL formula, it took > 10 min to coordinate feeding. Has uncoordinated latching on to bottle due to excessive rooting behavior. Other sx of w/d are also present and timing is consistent with heroin w/d.

Sleeping: No – Able to sleep for 2 hrs. when held.

Consoling/Consoling Support Needed: No/2 – Baby fussy but only took approximately 5 minutes to settle (and remains consoled) with swaddling and holding.

Care Plan

Formal Parent/Caregiver Huddle: Yes **-** e.g., A Formal Parent/Caregiver Huddle (FPCH) should be performed as Eating difficulties are present and NPIs are not maximized at this time.

Full Care Team Huddle: No - NPIs can be maximized further and no other significant concerns are present at this time.

Management Decision: a + d **-** Optimize NPIs and consult feeding team due to baby's bottle feeding challenges (alerting feeding team that baby just fed and will alert to next feeding to cluster care). Consider consulting occupational therapy and physical therapy to help with neurobehavioral dysregulation and request coordinated visit with feeding team (and/or with future RN/provider assessment to cluster care), if possible.

Parent/Caregiver Presence

>3 hrs. – Mom present entire time.

Non-Pharm Care Interventions (NPIs)

Reinforce: Rooming-in, maternal presence, holding, swaddling, and calm room

Not Applicable: Limiting Visitors

Increase

- **Skin-to-skin contact:** Trial skin-to-skin contact before feedings to help organize baby's behavior/feeding coordination.
- **Optimal feeding:** Try offering next feedings earlier to catch baby before she gets too hungry. Teach mom about very early feeding cues to watch for, using skin-to-skin contact and sucking on finger with a small amount of formula to help calm baby and organize suck prior to offering bottle. Consult speech and language/feeding team to assist with bottle feeding coordination; try different nipples if flow assessed to be too slow. Teach mother that nipple flow-rate needs may change over time based on baby's symptoms (e.g., sometimes baby will suck too quickly/aggressively and will need a slower flow nipple to ensure baby doesn't overfeed).
- **Non-nutritive sucking:** Trial non-nutritive sucking as above with finger (or pacifier). Review baby's excessive rooting and discuss how pacifier may help when baby is swaddled in a blanket. Discuss how to always ensure baby is well fed before using pacifier and offer feeding to baby earlier to avoid baby getting too hungry.
- **Additional help/support in room**: Review with mom importance of getting help because she will not be able to hold baby all of the time due to safe sleep/infant fall risk and need for mom to get some rest. Recommend finding a cuddler to hold baby in room.
- **Clustering care:** Recommend mom to call before feeding so that RN/lactation consultant can coach mom in bottle feeding infant, allowing direct assessment and assistance if needed and to help cluster RN's assessments of vitals with baby's wake/feeding schedule.

Educate: use of infant calming device that has rhythmic movement in presence of awake, alert caregiver. Will still need extra help in room but will allow mom some time not holding baby if baby settles in there.

Reinforce/Educate: holding by parent/caregiver/cuddler, safe sleep/fall prevention, and **parent/caregiver self-care and rest.** Discuss that it is ok for baby to be held for sleep but need to ensure safe sleep in arms of awake, alert caregiver. Reinforce that mom has been awake when holding baby, but provide education for future, and ensure that she is taking time to rest herself.

TIME 2

NOWS/NAS Assessment

Are symptoms (sx) of withdrawal (w/d) present? Yes – Poor sleep, unable to keep pacifier in mouth due to excessive rooting on blanket, disturbed tremors from noise, exaggerated Moro.

If yes, is timing consistent with known opioid? Yes – Heroin w/d often seen in first 2 days.

Are co-exposures present that may contribute to w/d sx? Yes – Please refer to Time 1's co-exposure discussion.

Are non-pharm care interventions (NPIs) maximized to fullest extent possible in infant's clinical setting? No – baby was being cared for in noisy nursery with a nurse's aide that has many other tasks to attend to. An alternative caregiver should be identified to help care for baby.

Eating, Sleeping, and Consoling (ESC) Assessment

Eating: No – Taking only 5 min to coordinate feeding now, then bottle-feeding 15 mL of formula within 10 min.

Sleeping: Yes – Baby frequently waking in nursery, sleep < 1 hr. due to NOWS (e.g., startling out of sleep due to Moro/tremors).

Consoling/Consoling Support Needed: Yes/3 – Calms within a few min. of being picked up and jiggled but then becomes fussy again as soon as movement is stopped, and sx are assessed as being due to NOWS. During this assessment's time period, the baby is unable to stay consoled for more than a few minutes with the level of caregiver support currently available in the infant's clinical setting. (i.e., baby cannot stay consoled for *at least* 10 min. despite the best consoling efforts of the caregiver who is present/available at the time.) Rating a Yes and 3 here indicates that an increased level of intervention is needed (e.g., increased holding and rhythmic movement by an alert, awake undistracted caregiver). If there was another caregiver available to hold the baby and to consistently provide this rhythmic movement, the baby may have been able to stay calm. If this was true, the baby might receive a Consoling Support Needed rating of "2", demonstrating that the baby is adequately treated with these NPIs.

Care Plan

Formal Parent/Caregiver Huddle: Yes – A Formal Parent/Caregiver Huddle should be performed because Sleeping and Consoling difficulties are now present *AND* NPIs are not maximized at this time.

Full Care Team Huddle: No – Baby has NOT received a 2nd Yes in a row for the same ESC item or 2nd 3 in a row for Consoling Support Needed, *AND* NPIs are not maximized at this time. In the clinical care setting, it is always an appropriate option to include a provider or other staff in the huddle, but for IRR purposes this is the minimum appropriate level for the baby's Care Plan (based on the ESC Care Tool's definitions).

Management Decision: a + d – Optimize NPIs and request occupational therapy and physical therapy consult if not yet performed to help identify ways to further support baby with increased NOWS sx, including in an overstimulating setting.

Parent/Caregiver Presence

0 hr. – Over past 3 hours, mom off unit for smoking break and trip to methadone treatment center for intake visit. No family/support available to help care for baby in own room. Although baby is in the nursery, nurse's aide able to give the baby limited attention. Indicating a '0' here highlights lack of a caregiver to solely provide care for this baby. As per the ESC Care Tool's definitions, staff could instead indicate the number of hours that staff spent [directly] with infant in the nursery.

Non-Pharm Care Intervention (NPIs)

Even though mom not present, NPIs should be addressed for those that staff are implementing well ("R") versus those that need to be increased now ("I") and/or educated on for future ("E") either by/for staff or mom.

Increase (+/- Reinforce)

- **Parent/caregiver presence** in **quiet, low light, rooming-in environment**
- **Skin-to-skin contact:** Increase skin-to-skin contact with mom now that she is with baby. Stress the impact of skin-to-skin contact on helping baby's NOWS sx, including tremors, sleep, and consolableness. Also discuss this may make mother sleepy.
- **Holding by parent/caregiver/cuddler** and/or **Rhythmic movement:** Baby fusses frequently when put in bassinet, but settles within a few minutes of being picked up and jiggled. Demonstrate effective jiggling techniques with mother. Review use of infant swing/other calming device (e.g., rocking bed, "mamaRoo") when an awake/alert/non-distracted caregiver is present.
- **Safe/effective swaddling:** Reinforce current swaddling. Avoid swaddling blanket close to baby's face to limit excessive rooting.
- **Additional help/support in room:** In addition to continuing to try to identify a cuddler, inquire if the recovery coach from mom's treatment program is available to support mom for a few hrs. each day. If in-person support is not available, perhaps by phone or a web-based platform (based on hospital's or recovery coach/treatment program's individual preference).

Educate (+/- Reinforce)

- **Optimal feeding:** Reinforce success w/ current feeding technique. Provide education on possible need to pace infant's feeding if infant starts sucking too rapidly/aggressively on bottle.

- **Safe sleep/fall prevention** and **Parent/caregiver self-care and rest:** Discuss that mom's methadone dose may make her sleepy and to be especially aware of the need for safe sleep/fall prevention, placing baby in bassinet if feels sleepy and/or calling for help.
- **Clustering care:** Reinforce RN's performing assessment together with mom in room after mom returns to room. Discuss that have asked occupational therapy and physical therapy to consult and coordinate visit with RN's assessment/infant's feeding, etc., as able. Encourage/teach mom to call before next feeding and request RN assessment and occupational therapy/physical therapy consult.

TIME 3

NOWS/NAS Assessment

Are symptoms (sx) of withdrawal (w/d) present? Yes – Fussy/increased crying, exaggerated Moro even without stimulation (e.g., room is quiet), difficulties staying consoled without constant movement.

If yes, is timing consistent with known opioid? Yes – Increasing sx in this baby are likely due to heroin w/d.

Are co-exposures present that may contribute to w/d sx? Yes – Please refer to Time 1's co-exposure discussion.

Are non-pharm care interventions (NPIs) maximized to fullest extent possible in infant's clinical setting? Yes – NPIs are maximized in infant's current clinical setting. Additional support is needed to help safely and effectively care for the baby. If available, a quiet rooming-in environment would be the best clinical setting to care for the infant at this time.

Eating, Sleeping, Consoling (ESC) Assessment

Eating: No – Drinks bottle readily, taking 30 mL in 5-10 (<10) min. Grimaces and bites down on nipple when mom tries to offer more.

Sleeping: Yes – Baby fussy, unable to stay asleep for > 20 min. at a time. Startling self out of sleep even when room is quiet.

Consoling/Consoling Support Needed: Yes/3 – Baby consoles within a few minutes when mom "shooshes" and jiggles baby in bassinet; unable to remain consoled for *at least* 10 min. despite mom's best efforts. (i.e., "will not stay consoled for more than 5 min. because mom falls asleep and stops jiggling/making shooshing noise.")

Teaching Point

In the setting of an awake, alert caregiver who is able to provide continuous NPI support, this baby may be able to remain calm and sleep for at least an hr. Making a concerted effort to maximize NPIs may minimize need for medication treatment.

Care Plan

Formal Parent/Caregiver Huddle: NA – Mother to be included in the Full Care Team Huddle.

Full Care Team Huddle: Yes – Baby has received a 2nd Yes in a row for sleeping and consoling, and a 2nd 3 for consoling support needed, AND NPIs are maximized at this time to fullest extent possible in infant's current clinical setting. Significant safety concerns are present due to mom's sleepiness after methadone dosing (though she is doing the right thing by leaving baby in bassinet and trying to console baby there). The Full Care Team needs to identify the safest place to care for the baby in the setting of increased NOWS sx, lack of an awake/alert/non-distracted caregiver (including staff), and potential need for medication.

Topics in this Full Care Team Huddle should include

1. **Review of baby's NOWS sx** including difficulties Sleeping & Consoling unless held or attended to constantly.
2. **Review that timing is consistent with known opioid exposure** = heroin.
3. **Consideration for other potential etiologies for symptoms** (e.g., consider hypoglycemia in this small infant if jitteriness present alone; in this baby's case, significant sx of opioid w/d are also present and thus sx not felt likely due to other etiology).
4. **Review of NPIs implemented to date** and a full care team **assessment of whether NPIs are maximized in infant's clinical setting**. In this case, all NPIs are maximized for the infant with exception of **Rooming-in, Holding, Additional help/support in room,** and **Clustering Care** (mom trying but staff not available). As per number 6 below, further attempts at maximizing **Non-nutritive sucking** may also be considered with possible use of sucrose.
5. **Brainstorming additional ways to maximize NPIs in infant's clinical setting** – e.g., Is a nursing or medical student available to hold baby in room or in a quiet, non-stimulating area in nursery (or other unit, if needed)? Can a volunteer or cuddler be called in? Can the charge RN or a hospital nursing supervisor help identify a staff member that can float from another unit (or be called in) to help care for baby in baby's room? Is a recovery coach, community health worker, family resource/parent-child center home visitor, or child protective services worker (that mom works with or will work with mom in the community) available to come stay with mom for a little while? Is a foster family available (if baby will be going home from hospital to foster care in setting of mom's heroin use up until time of delivery)?
6. **Recommendation for medication if NPIs thought to be maximized in infant's clinical setting and ESC difficulties continue** (as they currently are with this infant for Sleeping & Consoling), **continuing to optimize all NPIs and monitoring infant closely** – Full Care Team Huddle should discuss where medication dosing will be given and what monitoring is needed/available per hospital policy. As an alternative, a dose of sucrose solution may be trialed with non-nutritive sucking while attempting to mobilize additional help/cuddler (indicated with "I?" in NPI checklist). If sucrose is used as a temporary 'medication', the mother (and staff) should be educated about importance of not delaying/missing infant's feeding.

Management Decision: a + b? + d*** – a = Continue/Optimize NPIs. b? = Trial dose of sucrose solution with a pacifier and reassess in 30 min. with plan to give morphine dose if ESC difficulties do not improve. Plan to reassess sx after morphine, if dosing required. d*** =

Social work consult to help identify in-hospital/community resources to provide emotional support mother and to help navigate conversation with mom's MAT provider about mom's methadone dosing, if mom's sleepiness continues. D = also includes phone or in-person conversation with charge RN, hospital nursing supervisor and infant's attending (if attending was not involved in original Full Care Team Huddle) with consideration for transfer to another unit for rooming-in availability, increased staffing, and/or medication dosing/monitoring.