Keeping Kids Alive
IN WISCONSIN

Children’s Health Alliance of Wisconsin
Fatality Review Case Reporting System

Understanding SUID Case Registry through the Centers for Disease Control and Prevention
SUID Session Goals

• Define a SUID

• Identify SUID priority variables

• Learn to assign a SUID category
SUID Registry

- Sudden Unexpected Infant Death
- Infant death that occurs suddenly and unexpectedly, and whose cause is not immediately known before investigation
- Infant must be a resident of the state reporting the death to the registry
- Project of the Centers for Disease Control and Prevention (CDC)
Purpose of SUID registry

• Estimate burden of SUIDs nationwide
• Determine what factors define the highest risk groups for SUIDs
• Identify possible biologic and/or genetic mechanisms underlying some SUIDs
• Inform prevention efforts
Decision-making algorithm for assigning SUID Case Registry categories

**Explained Categories**

- Does the infant death meet the criteria for SUID Case Registry categories? Case are those where the death certificate indicates the cause as unknown, undetermined, SIDS, SSMI, unexpected sleep-related suffocation/suffocation/interference, unexplained suffocation, cardiac or respiratory arrest, or other well-defined causes, or an unexpected cause with potentially contributing unsafe sleep factors?
  - Yes
  - Unexplained Categories
  - No, No Autopsy or Death Scene Investigation

**Unexplained Categories**

- Category and death cause investigation done?
  - Yes
  - Detailed information about where and how the body was found, position, sleep surface, soft bedding
  - Toxicology, key, and pathology were performed and documented
  - Pathology can include histology, microbiology, or other pathology such as genetic testing, but not only gross examination
  - No, No Unsafe Sleep Factors

**Explained, Excluded**

- Any unsafe sleep factors?
  - Yes
  - Examples: soft objects or loose bedding (e.g., pillow, blanket, bumper pad), not in a crib, portable cots or bassinets, head to head, prone, or other suffocation or stranglement hazards
  - No

**Unexplained, Incomplete Case Information**

- Factors for suffocation present?
  - Yes
  - Examples: face pressed into or obstructed by soft bedding (e.g., pillow, ag�
date, sleeping bag, cloth), witnessed strangle, entrapment or wedging
  - No

**Unexplained, Unsafe Sleep Factors**

- Was there strong evidence of full, external obstruction of both nose and mouth, or external neck or chest compression with a reliable and non-contradicting witnessed account AND no other potentially fatal findings or concerning conditions AND suffocation is probable given the infant age and likely stage of development?
  - Yes
  - Unexplained, Possible suffocation with unsafe sleep factors
  - No

**Explained, Suffocation with unsafe sleep factors**

- Which primary mechanism explains suffocation or possible suffocation?
  - Soft Bumper
  - Wedging
  - Other

**Unexplained, No Safe Sleep Factors**

*Category includes cases that may or may not have other potentially fatal findings, concerning conditions, or competing cause of death, but how these factors contribute to death is uncertain.
Defining a SUID

Does the infant death meet the criteria for SUID Case Registry categorization? Cases are those where the death certificate indicates the cause as unknown, undetermined, SIDS, SUID, unintentional sleep-related asphyxia/suffocation/strangulation, unspecified suffocation, cardiac or respiratory arrest without other well-defined causes, or unspecified causes with potentially contributing unsafe sleep factors.
Defining a SUID

- **G2**: Immediate and underlying causes of death
- **G3**: Other significant conditions contributing to death
- **G4**: Injury information: Describe how injury occurred
- **G5**: Official manner of death
5. Official manner of death from the death certificate:

- Natural
- Accident
- Suicide
- Homicide
- Undetermined
- Pending
- U/K

6. Primary cause of death: Choose only 1 of the 4 major categories, then a specific cause. For pending, choose most likely cause.

From an injury (external cause). Select one and answer G4:
- Motor vehicle and other transport, go to H1
- Fire, burn, or electrocution, go to H2
- Drowning, go to H3
- Unintentional asphyxia, go to H4
- Assault, weapon or person’s body part, go to H5
- Fall or crush, go to H6
- Poisoning, overdose or acute intoxication, go to H7
- Undetermined injury, go to I1
- Other cause, go to H9
- U/K, go to I1

From a medical cause. Select one:
- Asthma/respiratory, specify and go to H8
- Cancer, specify and go to H8
- Cardiovascular, specify and go to H8
- Congenital anomaly, specify and go to H8
- Diabetes, go to H8
- HIV/AIDS, go to H8
- Influenza, go to H8
- Low birth weight, go to H8
- Malnutrition/dehydration, go to H8
- Neurological/seizure disorder, go to H8
- Pneumonia, specify and go to H8
- Prematurity, go to H8
- Undetermined medical cause, go to H8
- U/K, go to H8
- SIDS, go to H8
- Other infection, specify and go to H8
- Other perinatal condition, specify and go to H8
- Other medical condition, specify and go to H8
- Undetermined medical cause, go to H8
- U/K, go to H8
What Are the Priority Variables?

- Majority identified by CDC
- Additional variables identified by Alliance
- Reflected in annual SUID report
SUID Priority Variables

• Cases are identified, reviewed and entered by local team

• Alliance staff works with case reporter to review case report
  – Consistency in responses across teams
  – Reduction in missing and unknown priority variables
Group Exercise

• Review the priority variable list

• Which data sources or agencies are the most likely sources for each variable?

• Do any variables stand out as difficult to obtain?
Typically Tricky Variables

• Section A – Child information
  – A15: Insurance
  – A57: Newborn metabolic screen

• Section F – Investigation
  – F5: Imaging
  – F6: Additional tests
Typically Tricky Variables

• Section I1: SDY

• Section I2: Sleep Environment
  – Unsafe sleep factors: a, b, c, i, o, r
  – Factors for suffocation: l, m, n, o
  – Suffocation v. possible suffocation: n, o
Section N

- N1: Is this an SDY or SUID case?

- N10: Categorization for SUID Case Registry

- Check box if SUID case is complete
N10: SUID categorization

• If response to M1 = yes, then team assigns SUID category based on algorithm
• Alliance confirms categorization during case cleaning
• Completeness of data abstracted prior and during CDR meeting critical
Decision-making algorithm for assigning SUID Case Registry categories

Explained Categories

- Does the infant death meet the criteria for SUID Case Registry categories?
  - Yes: Unexplained Categories
  - No: No Autopsy or Death Scene Investigation

- Category and death scene investigation done?
  - Yes: Detailed information about where and how the body was found, position, sleep surface, soft bedding, etc.
  - No: Incomplete Case Information

- Any unsafe sleep factors?
  - Yes: Unexplained, Unsafe Sleep Factors
  - No: Unexplained, No Unsafe Sleep Factors

- Sufficient factors present?
  - Yes: Unexplained, Possible Suffocation with unsafe sleep factors
  - No: Unexplained, Suffocation with unsafe sleep factors

- Which primary mechanism explains suffocation or possible suffocation?
  - Soft bedding
  - Wedging
  - Overrider
  - Other

Unexplained Categories

- Unexplained, No Autopsy or Death Scene Investigation

*Category includes cases that may or may not have other potentially fatal findings, concerning conditions, or competing cause of death, but how these factors contribute to death is uncertain.
Decision-making algorithm for assigning SUID Case Registry categories

Explained Categories

Explained, Exclude

No

Does the infant death meet the criteria for SUID Case Registry categorization? Cases are those where the death certificate indicates the cause as unknown, undetermined, SIDS, SUID, unintentional sleep-related asphyxia/suffocation/strangulation, unspecified suffocation, cardiac or respiratory arrest without other well-defined causes, or unspecified causes with potentially contributing unsafe sleep factors.

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Unexplained Categories

Yes

Autopsy and death scene investigation done?

No

Yes

Unexplained, No Autopsy or Death Scene Investigation
Autopsy and death scene investigation done?

Yes

Detailed information about where and how the body was found, (position, sleep surface, soft bedding) AND
Toxicology, X-ray, and pathology were performed and documented. Pathology can include histology, microbiology, or other pathology such as genetic testing, but not solely gross examination.

No

Unexplained, No Autopsy or Death Scene Investigation

No

Unexplained, Incomplete Case Information
Detailed information about where and how the body was found, (position, sleep surface, soft bedding) **AND** Toxicology, X-ray, and pathology were performed and documented. Pathology can include histology, microbiology, or other pathology such as genetic testing, but not solely gross examination.

Yes

Any unsafe sleep factors? Examples: soft objects or loose bedding (e.g. pillow, blanket, bumper pads), not in a crib, portable crib or bassinet, shared sleep surface, found non-supine, or other suffocation or strangulation hazards

No

Unexplained, No Unsafe Sleep Factors*

Unexplained, Incomplete Case Information
Any unsafe sleep factors?
Examples: soft objects or loose bedding (e.g. pillow, blanket, bumper pads), not in a crib, portable crib or bassinet, shared sleep surface, found non-supine, or other suffocation or strangulation hazards

Yes

Factors for suffocation present?
Examples: face pressed into or obstructed by soft bedding (e.g., pillow, egg crate, sleeping bag, couch), witnessed overlay, entrapment or wedging

No

Unexplained, No Unsafe Sleep Factors*

Unexplained, Unsafe Sleep Factors*
Factors for suffocation present?
Examples: face pressed into or obstructed by soft bedding (e.g., pillow, egg crate, sleeping bag, couch), witnessed overlay, entrapment or wedging

Yes

Was there strong evidence of full, external obstruction of both nose and mouth, or external neck or chest compression WITH a reliable and non-conflicting witnessed account AND no other potentially fatal findings or concerning conditions AND suffocation is probable given the infant age and likely stage of development?

Yes

Explained, Suffocation with unsafe sleep factors

No

Unexplained, Possible suffocation with unsafe sleep factors*

No

Unexplained, Unsafe Sleep Factors*

Which primary mechanism explains suffocation or possible suffocation?

- Soft Bedding
- Wedging
- Overlay
- Other
Mechanism for suffocation: Soft bedding

- Soft or loose bedding, pillows, or stuffed toys on sleep surface obstructing airway.
- Example: Infant found face down or other position with airway obstruction.
Mechanism for suffocation: Wedging

- Wedging of infant between two objects such as a mattress and wall, bed frame, or furniture causing airway obstruction or compressing chest preventing respiration
Mechanism for suffocation: Overlay

- Shared sleep surface with other person overlaying or rolling on top of or against infant while sleeping and obstructing airway or compressing neck or chest area and preventing respiration
Mechanism for suffocation: Other

- Factors, other than soft bedding, wedging or overlay causing an airway obstruction

- Example: Neck position of infant napping in car seat results in airway obstruction
*Category includes cases that may or may not have other potentially fatal findings, concerning conditions, or competing cause of death, but how these factors contribute to death is uncertain.
Communication with the Alliance

- Email your Alliance coordinator when you are informed of a case that is a possible SUID
- Email your Alliance coordinator the case summaries you will review ahead of your CDR meeting
- We recommend teams enter data within 30 days of the review
- Alliance data program manager will clean case and communicate with team
Mock Case Two

• Mock case scenario in packet on your table

• Review mock case

• Answer “Mock Case Two Questions” as a group
Questions and thank you

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