

Syndrome Definition Committee Monthly Meeting

November 6, 2019
1-2 pm ET

Today's Agenda

- ▶ Announcements
- ▶ Overview of last call on October 2, 2019
 - ▶ Meeting recordings are available in the Knowledge Repository
- ▶ Current Topics
 - ▶ Slack Channel
 - ▶ New CCDD Categories
- ▶ Traumatic Brain Injury Syndrome - North Dakota Department of Health
- ▶ ISNULL discussion
- ▶ Mental Health Syndrome Update:
 - ▶ CCDD Fact Sheet and Discussion

Overview of October call

Current Topics

▶ Slack Channel

- ▶ Clarification on Pulse Ox queries in ESSENCE (# vape-assoc-illness-query)
- ▶ New guidance document for coding vaping-associated lung injuries (# vape-assoc-illness-query)
- ▶ Request for use cases for hospitals (# everyone)
- ▶ Request for use cases examining MVC, Bicyclist, and Pedestrian Injuries (# everyone)
- ▶ Request for input on a Neonatal Abstinence Syndrome (# syndrome-definitions)
- ▶ Fish Hook Injury query shared (# syndrome-definitions)
- ▶ Request for opinions on a Visits of Interest v2 (# syndrome-definitions)

Current Topics

- ▶ New CCDD Categories added since September
 - ▶ CDC Stimulants v3
 - ▶ CDC Sexual Violence v3
 - ▶ CDC Tick Exposure v1
 - ▶ CDC Lyme Disease v1
 - ▶ CDC Diabetic Ketoacidosis v1
 - ▶ Homelessness v1

Traumatic Brain Injury

The background of the slide is white with abstract, overlapping geometric shapes in various shades of blue (light blue, medium blue, and dark blue) on the right side, creating a modern, professional look.



SYNDROME/CASE DEFINITION FOR TRAUMATIC BRAIN INJURY:
The Journey From Data Request, Developing Definition, Analysis and Use

November 6, 2019

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North Dakota Department of Health

Purpose & Use



Rasha Elnimeiry, MPH, MAS

Epidemiologist

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North Dakota Department of Health

Development



Anastasia Stepanov, MPH student

Epidemiologist

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Analysis

PURPOSE – KODI

- No TBI data (TBI registry didn't happen)
- Limited staff and resources
 - North Dakota Department of Health Division of Injury & Violence Prevention didn't have epidemiological support
- Office of the State Epidemiologist was created
 - Access to new data sources
- Received data request
 - Brain Injury Advisory Council



DEVELOPMENT – RASHA

ICD 10-CM Codes	Description
S02.0, S02.1-	Fracture of skull
S02.8, S02.91	Fracture of other specified skull and facial bones; unspecified fracture
S04.02, S04.03-, S04.04-	Injury of optic chiasm; injury of optic tract and pathways; injury of visual cortex
S06-	Intracranial injury
S07.1	Crushing injury of skull
T74.4	Shaken infant syndrome

ICD 10-CM Codes	Description
S01-	Open wound of head
S02.3	Fracture of orbital floor
S02.7	Multiple fractures involving skull and facial bones
S07.0	Crushing injury of face
S07.8	Crushing injury of other parts of head
S07.9	Crushing injury of head, part unspecified
S09.7	Multiple injuries of head
S09.8	Other specified injuries of head
S09.9-	Unspecified injury of face and head
T90.1, T90.2, T90.4, T90.5, T90.8, and T90.9	Sequelae of injuries of head



DEVELOPMENT – RASHA

■ ESSENCE Query Definition:

^[/]S02.0^,OR,^[/]S020^,OR,^[/]S02.1^,OR,^[/]S021^,OR,^[/]S02.1[0-9]^,OR,^[/]S021[0-9]^,OR,^[/]S02.8^,OR,^[/]S028^,OR,^[/]S02.91^,OR,^[/]S0291^,OR,^[/]S04.02^,OR,^[/]S0402^,OR,^[/]S04.03[a-z]^,OR,^[/]S0403[a-z]^,OR,^[/]S04.04[a-z]^,OR,^[/]S0404[a-z]^,OR,^[/]S06[a-z]^,OR,^[/]S06[a-z]^,OR,^[/]S07.1^,OR,^[/]S071^,OR,^[/]T74.4^,OR,^[/]T744^,

OR,^[/]S01[a-z]^,OR,^[/]S01[a-z]^,OR,^[/]S02.3^,OR,^[/]S023^,OR,^[/]S02.7^,OR,^[/]S027^,OR,^[/]S07.0^,OR,^[/]S070^,OR,^[/]S07.8^,OR,^[/]S078^,OR,^[/]S07.9^,OR,^[/]S079^,OR,^[/]S09.7^,OR,^[/]S097^,OR,^[/]S09.8^,OR,^[/]S098^,OR,^[/]S09.9[a-z]^,OR,^[/]S099[a-z]^,OR,^[/]T90.1^,OR,^[/]T901^,OR,^[/]T90.2^,OR,^[/]T902^,OR,^[/]T90.4^,OR,^[/]T904^,OR,^[/]T90.5^,OR,^[/]T905^,OR,^[/]T90.8^,OR,^[/]T908^,OR,^[/]T90.9^,OR,^[/]T909^,

OR,^skull fractur^,OR,^skull fx^,

OR,(, (^fractur^,OR,^fx^,OR,^injur^,OR,^hit^),AND,(^fac[ia][ai] bone^,OR,^orbit^,OR,h[ea][ae]d,OR,skull,OR,^optic ch[ia][ai]sm^,OR,^optic tract^,OR,^optic pathway^,OR,^visual cort^,OR,^intracran,OR,^intracr[ai][ia]n^,OR,^br[ia][ai]n,OR,h[ea][ae]d,)),

OR,(, (^crush^,OR,^injur^,OR,^multiple^),AND,(^skull^,OR,^face,OR,^fac[ia][ai]^,OR,^fac[ia][ai] bone^,OR,h[ea][ae]d,)),

OR,(, (^open^,OR,^w[ou][uo]nd^,OR,blow,OR,jolt^,OR,traum^,OR,impact,OR,^force,OR,penetrat^ injur^,OROR,contus[io][oi]n,OR,b[le][el]d^,OR,hematom^,OR,hemorrhag^,OR,coup-contrecoup,OR,contus[io][oi]n),AND,(br[ia][ai]n,OR,h[ea][ae]d,OR,skull,)),

OR,(^h[ea][ae]d injur^,OR,^skull fract^,OR,^skull fx^),AND,(^fall^,OR,^fell^,OR,^traffic^),

OR,^br[ia][ai]n,AND,(bleed,OR,concussion,OR,h[ea][ae]d trauma^,OR,DAI,OR,diffuse axonal injur^,OR,second impact syndrom^,OR,TBI,OR,^tr[au][ua]matic injur^),

OR,(, (^shak^,OR,^shook^),AND,(^baby^,OR,^infant^),OR,SID,OR,^shaken infant syndrome^),

Issues with Query:

Negation terms not working ("ANDNOT,(^denies,AND,^fall,OR,^h[ea][ae]d,))")

ANALYSIS OF SYNDROMIC DATA – ANASTASIA

- Looked for: Shaken Infant Syndrome, Assault, Fall/Fell, Motor Vehicle Crash/Collision/Accident, Striking against/ Struck by and the corresponding ICD10 codes;
- Used SPSS;
- Used the following variables (Admit Reason Combo, Chief Complaint Original, Discharge Diagnosis, CCDD, and Diagnosis Combo) as reference variables and designed syntax to look for the search of interest;
- Created a three-year analysis; calculated the rate per 100,000 by county.

USE OF SYNDROMIC DATA – KODI

- Provided more information than what was available previously
 - No new activities or efforts identified at this point
- Data may be shared with the Education Subcommittee and the Continuum of Care Subcommittee
- Look into using the data during the 2021 legislative session

ASK

- Validating or testing the case definition
 - Using your data from ESSENCE
- Shaken Infant Syndrome (SIS) adult ICD 10 (under med. Hx)
 - Incorrect coding or maybe adult had SIS when younger
 - Age for Infant: the month variable (0, -1)

ACKNOWLEDGEMENTS

- Division of Disease Control
 - Levi (ESSENCE Coordinator)
- Division of Injury & Violence Prevention



THANK YOU, ANY QUESTIONS?



CONTACT INFORMATION

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ISNULL Discussion

SDC Disaster-Related Mental Health Syndrome

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Line-level review - ICD-10-CM

ICD 10-CM	Nebraska		Alaska		Florida		Texas		CCQVT	
	Frequency	% Probable	Frequency	% Probable	Frequency	% Probable	Frequency	% Probable	Frequency	% Probable
F41	80	51%	92	91%	342	21%	25	36%	151	44%
F41.0	19	63%	19	95%	11	82%	6	83%	37	27%
F41.1	25	32%	7	85%	14	50%	16	19%	52	27%
F41.8	17	18%	15	73%	23	91%	3	33%	12	8%
F43.0	2	100%	27	85%	5	80%	8	88%	1	100%
F43.8	1	100%	-	-	-	-	-	-	-	-
F43.9	2	50%	6	100%	15	20%	3	0%	5	80%

Next Steps and Discussion

- ▶ Open discussion
- ▶ Opportunities for Feedback on Disaster Mental Health
- ▶ Future Topics/Syndromes

- ▶ Next Call December 4, 2019