TIONWIDE L'HILDREN'S° When your child needs a hospital, everything matters.

Non-Fatal Ligature Strangulation or Hanging

Urgent Care, Emergency Department & Psychiatric Crisis Department

Center for Clinical Excellence

Inclusion criteria:

Patients presenting with suspected intentional, self inflicted neck injury including:

- **Attempted hanging**
- Ligature use

Exclusion Criteria:

- Accidental neck injury
- Neck injury ffrom assault

Place in Complete Ligature use suspension with cervical collar or hanging a drop of > 4 Yes→• Yes-▶ If not at Main attempt in the feet in the last past 7 days? **Campus ED** 24 hours? (MCED), transfer by 911 No for Trauma evaluation Concerning signs or symptoms*? Yes • At

*Concerning signs or symptoms:

ANY occurrence of:

- Loss of consciousness Seizure-like behavior
- Facial, intra-oral, petechial, subconjunctival hemorrhage
- Soft tissue neck injury (swelling of neck or carotid tenderness)
- Incontinence
- Stroke-like symptoms/weakness
- Subcutaneous emphysema or crepitus
- Meets level 1 trauma criteria
- GCS < 15
- Significant ligature marks or neck contusions (if this is the only noted symptom, document the finding by photo in Epic and call ED attending to discuss the need for transfer)

Occurrence and PERSISTENCE to

time of exam of:

- Visual changes (spots, tunnel vision, flashing lights)
- Dysphonia/Aphonia
- Dyspnea
- Dysphagia/Odynophagia
- Dizziness/ lightheadedness
- Cervical spine tenderness

Main Campus Yes ED (MCED)? No Transfer to Main Campus Emergency Department and document using .strangulation in Epic If strangulation attempt in a Psychiatric Crisis Department patient occurred more than 24 hours prior, or only skin findings are present, consider delaying ED transfer for up to 2 hours to allow for completion of psychiatric evaluation. **EMS transport: GCS <15 Meets criteria Crepitus for EMS No. Abnormal neuro transport**? exam or vital signs Yes Restraints BHP: transport to main ED by Safe Car. Transfer to MCED by EMS Lewis Center or C-collar not necessary NCH Urgent Care: select transportation per Activate trauma alert if patient page 11 of NCH meets criteria policy: 20:25 Consider CT Angiography of C-collar not necessary neck Consider consultation with neurosurgery and / or trauma

(cervical spine xrays, head CTs and chest xrays are not routinely recommended)

Findings

necessitate

escalation

of care?

No

Consult

Neurosurgery

and Trauma

Services

Yes▶

No further strangulation evaluation needed and no medical follow-up is required.

No

Psychiatric follow-up as indicated

Definitions

Strangulation: asphyxia by closure of the blood vessels and/or air passages in the neck due to external pressure.

Ligature strangulation: a constricting band applied to the neck and tightened by a force other than the body weight

Hanging: the suspension (complete or incomplete) of a person's body, with compression due to the body's own weight.

NCH Trauma Criteria

Current Trauma Activation Criteria (internal only)

Quality Measures

Goal: To improve education surrounding concerning signs and symptoms related to intentional strangulation or hanging injuries and standardize initial management and escalation of care.

Process Measures:

- Utilization of "neck Injury by Strangulation or Hanging" documentation tool
- 90% of transfers to MCED utilizing EMS are appropriate based on pathway criteria

Outcome Measures:

- Cumulative LOS (PCD/UC/LCED and MCED)
- Rate of CT angiography in patients without concerning signs or symptoms

Balancing Measure:

 24hr and 72hr return visit rate to ED/UC (not PCD) for intentional strangulation related injuries of patients not initially transferred to MCED for evaluation

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Advisory Committee Date: August, 2022

Origination Date: September, 2022 Last Revision Date: April, 2025

Next Revision Date: April, 2028

Clinical Pathway Development

This clinical pathway was developed using the process described in the NCH Clinical Pathway Development Manual Version 6, 2022. Clinical Pathways at Nationwide Children's Hospital (NCH) are standards which provide general guidance to clinicians. Patient choice, clinician judgment, and other relevant factors in diagnosing and treating patients remain central to the selection of diagnostic tests and therapy. The ordering provider assumes all risks associates with care decisions. NCH assumes no responsibility for any adverse consequences, errors, or omissions that may arise from the use or reliance on these guidelines. NCH's clinical pathways are reviewed periodically for consistency with new evidence; however, new developments may not be represented, and NCH makes no guarantees, representations, or warranties with respect to the information provided in this clinical pathway.

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