CLINICAL PATHWAY

SUSPECTED CONCUSSION

These pathways should be adapted by medical providers, when indicated, based on their professional judgement and taking into account individual patient and family circumstances.

Disclaimer: Pathways are intended as a guide for practitioners and do not indicate an exclusive course of treatment nor serve as a standard of medical care. These pathways should be adapted by medical providers, when indicated, based on their professional judgement and taking into account individual patient and family circumstances.

Review signs & symptoms for concussion:
- Complete Glasgow Coma Scale (GCS) if loss of awareness after injury
- Patient ≤ 18 involves use of GCS
- Consider using an age appropriate Glasgow Coma Scale (refer below)
- Consider one of the following: Sport concussion assessment tool (SCAT) 6 (For ages 8-12 years)
- Sport concussion office assessment tool (SCOAT) 6 (For ages 8-12 years)
- Cognitive assessment: Perform neurologic & physical exam which includes:
  - Scalp/hematoma, epidural hematoma
  - Hematoma assessment
  - Manual muscle testing
  - Balance exam
  - Consider coordination exam

Is concussion diagnosis suspected? (Discontinue CT Imaging if head or neck exam)

Are you or your child more of the following present?
- Physical Symptoms: headache, dizziness, nausea
- Cognitive symptoms: feeling mentally foggy, slow reaction times
- Sleep Symptoms: trouble falling asleep &/or staying asleep
- Emotional Symptoms: hostility, irritability

- If concussion is diagnosed, discuss patient with these considerations:
  - Provide standard educational materials
  - 1-2 days of physical & cognitive rest (includes keeping child out of school)
  - Light activity, light increase in physical & mental activity (as tolerated)
  - Limit/decrease electronic use, do not eliminate electronic use
  - Encourage sleep
  - Avoid academic accommodations as needed, may use NOAIDs as long as no evidence of bleeding in or around the brain
  - Avoid driving or operating machinery for at least a week
  - Do not return to any contact sport for at least 4 weeks
  - Avoid “souping” patient in an environment with no lights, electronics or stimulation
  - Discourage use of sunglasses

Children should consider referring child to a concussion specialist if child is not ready to return to normal activities after 4 weeks

Return to school with academic accommodations as needed

- A light increase in physical & mental activity (as tolerated)
- Returning to school with academic accommodations as needed

Pediatricians should consider referring child to a concussion specialist if child is not ready to return to normal activities after 4 weeks

- After 2 days of light activity, primary PCP should encourage:
  - Returning to school with academic accommodations as needed
  - A light increase in physical & mental activity (as tolerated)
  - Returning to school with academic accommodations as needed

- If concussion is suggested within 4 weeks, PCPs:
  - Remove academic accommodations as symptoms resolve (typically within a few days to 4 weeks)
  - Return to school with academic accommodations based on age, activity, child’s non-invasive, availability of athletic trainers, etc.

- After 2 days of physical activity, primary PCP should encourage:
  - Referring to the appropriate return to play transition based on age, activity, athlete vs. non-athlete, availability of athletic trainers, etc.

- Neurology OR Physical Medicine & Rehabilitation: for concussions related to motor vehicle accident (MVA) or other mechanism (fall from great height, etc.)
- Sports Medicine: for concussions related to sports, contact, or non-contact activities
- Rehabilitation: for concussion as a result of mechanism (fall from great height, etc.)
- Neuropsychology
- Optometry
- Speech & Language Pathology
- Physical Therapy
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- Follow up post-concussion in 1 week with PCP or previous concussion management team as needed (face to face, phone call, or by phone to monitor symptom progression)
- Clinical condition rarely deteriorates in the days after a concussion; however, clinicians should reassess the need for imaging and other studies at each appointment based on symptom presentation
- Approximately 80% of patients diagnosed with concussion will be able to return to normal activities within 3-6 weeks (there is no additional trauma)

Referal considerations include:
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SUSPECTED CONCUSSION
CLINICAL PATHWAY

How do you feel?
You should score yourself on the following symptoms based on how you feel right now:

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Never</th>
<th>Rarely</th>
<th>Sometimes</th>
<th>Often</th>
</tr>
</thead>
<tbody>
<tr>
<td>Headache</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Feeling dizzy</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Feeling tired</td>
<td>0</td>
<td>1</td>
<td>2</td>
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</tr>
<tr>
<td>Nausea/vomiting</td>
<td>0</td>
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<td>0</td>
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<td>Balance problems</td>
<td>0</td>
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</tr>
<tr>
<td>Sensitivity to light</td>
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<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Complaints</td>
<td>0</td>
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<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Mood disturbance</td>
<td>0</td>
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<tr>
<td>Fatigue/hot flashes</td>
<td>0</td>
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Other:
Do symptoms worsen with physical activity? Yes No

What percentage of normal do you feel?

Graded Symptom Checklist - 13 and Younger

How do you feel?
"You should score your child on the following symptoms based on how you have observed most recently."

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Graded Symptom Checklist - 13 and Younger Parent Report

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