Return-to-Learn After Concussion

Guidelines for Implementation

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Implementation Guide/Resource Document

Introduction

A concussion is a mild form of traumatic brain injury (mTBI) that changes the way a person's brain normally works. A concussion is caused by a bump, blow, and/or a jolt to the head that may not involve physical contact. Concussions can occur with or without loss of consciousness. Signs and symptoms of a concussion can show up right after an injury or may not appear or be noticed until hours or days after the injury. The physical symptoms that are common following a concussion may include headaches, double vision, light sensitivity, dizziness, fatigue and/or sensitivity to noise. Learning difficulties that may be present include those associated with light and noise sensitivity, cognitive fatigue, slippages in attention, problems with memory, and/or slower processing speed. Any of these symptoms may negatively impact a student's learning, emotion regulation, or behavioral functioning in the school setting. These symptoms usually resolve in 1-2 weeks in the majority of cases, but in many cases they can linger for months. Consequently, there is a need for guidelines to support all students in their return to the educational environment after sustaining a concussion.

In 2011 the North Carolina General Assembly passed the Gfeller Waller Concussion Awareness Act (GWCA), that addresses concussion management for injuries experienced in the context of participation in public school sports. This law provided clear guidelines and procedures for managing the concussion symptoms of middle and high school students, including return-to-play guidelines, but did not address non-sports related injuries, injuries that occurred outside the school setting, injuries to younger children, or the needs of students as they returned to the learning environment. The current policy provides "return-to-learn" guidelines that should assist school districts in addressing the learning, emotional, and behavioral needs of all students, including those under the GWCA, following a concussion.

In support of the Return to Learn policy, this Implementation Guide:

1) Provides guidelines for the identification of students who have sustained a concussion;
2) Guides staff in the evaluation of a student with a concussion and provides guidelines for parent notification;
3) Provides parents and staff with concussion education;
4) Provides guidance for staff as they develop educational and health-related accommodations for students who have sustained a concussion;
5) Provides guidance to staff as they provide educational supports for students with prolonged symptoms related to concussion. (Persisting problems following concussion in children are more common in those with previous head injury, as well as those who have experienced preexisting learning difficulties, neurological, or psychiatric difficulties.)

Each of the following sections of this guide will explain a particular policy statement, offer examples of implementation, and provide resources that each LEA and charter school may use to develop local guidelines in meeting the needs of students who have experienced concussions.

(a) Each Local Education Agency (LEA) and charter school must develop a plan for addressing the needs of students, preschool through twelfth grade, suffering concussions. The plan must include:

1) Guidelines for removal of a student from physical and mental activity when there is suspicion of concussion;

Explanation:	Any teacher, coach, school administrator, school counselor, school psychologist, school drug counselor, school nurse, attendance officer, or other school professional who suspects that any student has suffered a concussion or other head injury shall immediately remove the student from any activities that may result in a further risk of head injury (e.g., physical education, recess, athletic competition, etc.)
Examples of Implementation:	*Any school employee who suspects that a student has suffered a concussion, or otherwise seriously injured their head, neck or back, will immediately remove the student from the physical activity in order to reduce the risk of further injury.* *In some instances, the student should not be moved. Signs and symptoms of a possible head, neck, and/or back injuries are listed below. If you observe a student experiencing even one of these symptoms, the student MUST immediately be removed from all participation.* *If the Certified Athletic Trainer (ATC)/First Responder is available, contact him/her immediately so an evaluation can be performed. If the ATC/First Responder is not accessible, provide the following care. Please note that if the student is unconscious or has an altered level of consciousness, 911 should be called immediately.* *Signs of Head, Neck, and Back Injuries include:* ● *Change in consciousness* ● *Severe pain or pressure in the head, neck, or back* ● *Tingling or loss of sensation in the hands, fingers, feet, or toes* ● *Partial or complete loss of movement of any body part* ● *Unusual bumps or depressions on the head or over the spine* ● *Blood or other fluids in the ears or nose* ● *Heavy external bleeding of the head, neck, or back* ● *Seizures* ● *Impaired breathing as a result of injury* ● *Impaired vision (e.g., double vision) as a result of the injury* ● *Nausea or vomiting* ● *Persistent headache* ● *Loss of balance* ● *Bruising of the head, especially around the eyes or behind the ears*

Resources:	*Websites:* Center for Disease Control - Heads-up Program - http://www.cdc.gov/headsup/pdfs/schools/tbi_schools_checklist_508-a.pdf North Carolina Emergency Guidelines for Schools - https://www2.ncdhhs.gov/dhsr/EMS/pdf/kids/guidelines.pdf BrainSteps Recommended Protocol - http://brainsteps.net/_orbs/about/2_BrainSTEPS_Protocol.pdf *Resources from other school districts:* Cabarrus County Schools: http://www.cabarrus.k12.nc.us/Page/1044 Charlotte-Mecklenburg Schools: Management of the Student Post-Concussion Wake County Public School System: WCPSS Management of Suspected Severe Injuries https://drive.google.com/open?id=0B4ilaeAe6nJ-RmtXcGRYRTRkR2c

2) Notification procedure to education staff regarding removal from learn(ing) or play;

Explanation:	If a student has a diagnosed concussion, then all stakeholders in the student's education must be notified (e.g., teachers, coaches, administrators, etc.). This procedure should be in written form and accessible by all staff.
Examples of Implementation:	*It is recommended that each school designate a professional to be the **concussion contact** for the school. This person facilitates the return to learn procedures. This can be any professional in the school setting and they should be clearly identified by the school administration.* *Depending on the size of the school, a **case manager** may also be another useful role to designate. Potential duties of a case manager may be as follows:* • *Follow up with parent as needed to ensure student's needs are being addressed* • *Coordinate the development and follow-up of an Educational Plan of Care* *Whomever receives the initial notification of a student's diagnosed concussion should inform the designated concussion contact (e.g., parent provides initial documentation to school receptionist, who then immediately alerts the designated concussion contact at the school)* *Upon notification of a diagnosed concussion, the concussion contact immediately notifies the parent(s), teacher(s), and school nurse. Others should be notified (i.e., psychologist, coach, etc.) as needed. This written notification serves the following purposes:* • *Assignment of case manager* • *Informs others of concussion* • *Includes symptoms for parent(s) and teachers to watch for* • *Asks teachers to note needed accommodations/modifications* • *Lists recommendations from physician (if available)* • *Gives directions to contact concussion contact with questions/concerns*
Resources:	*Websites:* BrainSteps Recommended Protocol http://brainsteps.net/_orbs/about/2_BrainSTEPS_Protocol.pdf BrainSteps Notification Flow Chart *Resources from other school districts:* Cabarrus County Schools: http://www.cabarrus.k12.nc.us/Page/1044Flow Chart Wake County Public School System: WCPSS Assisting Students with a Concussion

3) Expectations regarding annual medical care update from parents, medical care plan/school accommodations in the event of concussion;

Explanation:	**Annual medical care update:** this is explained more fully in component (d) below. **Medical Care Plan/ Educational Care Plan** - The Return-to-School plan may represent different levels and duration of care including, but not limited to: ● monitoring of learning, emotional functioning and behavior across all school settings ● targeted strategies to support learning and behavior - including reasonable periods of cognitive rest and physical restrictions (as guided by the medical professional involved) ● a Medical Care Plan, or ● other interventions, as deemed necessary for the student by the designated school-based team
Examples of Implementation:	*If the student is experiencing difficulties due to the concussion, development of an Educational and/or Medical Care Plan would occur. It is recommended that this occur via a face-to-face meeting.* - *Initiation and coordination of this meeting would involve the concussion contact and (if applicable) the case manager.* - *Suggested participants (if not already included as concussion contact and case manager) include: teacher(s), parent(s), school counselor, school nurse.* - *Others could include the student, school psychologist, coach, etc., as needed and appropriate.* ***Medical Care Plan:*** *A document outlining the accommodations and modifications a student may need to address medical symptoms while recovering from a concussion. This plan is reviewed as often as necessary, (recommended - weekly).* - *The Medical Care Plan is led by the school-based health care professional.* - *The Medical Care Plan may also be referred to as the Individual Health Care Plan.* ***Educational Care Plan:*** *A document outlining the supports that a student may need to address academic, emotional, and behavioral difficulties while recovering from a concussion. This plan is reviewed as often as necessary (recommended as frequently as the Medical Care Plan).* - *The Educational Care Plan is led by the designated school professional (may by the concussion contact or case manager designated at the school).*

Resources:	*Resources from other school districts:* Cabarrus County Schools: CCS Return to Learn: Academic Accommodation Plan Following Concussion CCS Modifications Form Charlotte Mecklenburg Schools: Management of the Student Post-Concussion-CMS Wake County Public School System: WCPSS Assisting Students with a Concussion WCPSS Academic Plans of Care WCHS Medical Care Plan

4) Delineation of requirements for safe return-to-learn or play following concussion.

Explanation:	If a concussion is diagnosed by a medical care provider, then appropriate steps should be taken to address that student's learning, emotional, and behavioral needs throughout the course of recovery. The continuum of support provided could include appropriate monitoring of recovery, academic and/or functional accommodations, or temporary removal from the formal classroom environment. Prolonged symptoms must be addressed in a manner that matches the student's needs to the level of intervention. If the Return-to-Learn Plan (Medical Care Plan, Educational Care Plan) is found to be insufficient in meeting the needs of a student at any point during the monitoring process, the *school-based problem solving team* should become involved in order to identify appropriate targeted interventions for the student. - When possible, a School Psychologist who is certified as an approved provider for assessment of TBI, should be part of this decision-making process. *Please see Appendix A for a review of the current literature that guides return to learn timelines and decision making.*
Examples of Implementation:	● *The Educational Care Plan is reviewed as often as necessary, (recommended as often as the Medical Care Plan).* ● *As a student progresses in recovery, decrease the intensity of the accommodations and modifications until the student has been symptom free without accommodations/modifications for two or more weeks. The plan can then be discontinued.* ● *If an Educational Care Plan has been in place and proven insufficient in improving the educational (academic and/or functional) performance of the student, then the student should be referred to the school-based problem solving team for direct support specific to academic and/or functional needs.*

	• *For students with existing 504 plans/IEPs, these plans are not amended unless a student demonstrates a significant need in direct relation to their concussion.* • *If state testing accommodations are needed, the use of the transitory impairment procedure may be appropriate.*
Resources:	*Resources from other states:* BrainSteps flowchart Oregon http://cbirt.org/ocamp/resources/ Return to Academics http://media.cbirt.org/uploads/files/return_to_academics.pdf Plan of Accommodations http://media.cbirt.org/uploads/files/504_plan_ocamp.pdf *Resources from other school districts:* Cabarrus County Schools: http://www.cabarrus.k12.nc.us/Page/1044 CCS Return To Learn CCS Modifications Form Charlotte Mecklenburg Schools: Management of the Student Post-Concussion-CMS Wake County Public School System: WCPSS Assisting Students with a Concussion WCPSS Academic Plans of Care WCPSS Academic Plan of Care How To PPT

(b) In accordance with the LEA or charter school plan, each school must appoint a team of people responsible for identifying the return-to-learn or play needs of a student who has suffered a concussion. This team may include the student, student's parent, the principal, school nurse, school counselor, school psychologist, or other appropriate designated professional.

Explanation:	If an Educational or Medical Care Plan is deemed necessary, this should be developed by a designated team of school-based professionals, the student's parent(s)/guardian(s) and medical care providers in order to address the needs of that student as they progress through recovery.
Examples of Implementation:	• *The parent/guardian and designated Concussion Contact (or other designated school professional) are present in the development of the plan of care.* • *The student should be invited at the team's discretion.*

	• *If the student's teacher(s) cannot be present when the plan is developed, input should be gathered prior to development.* • *Individuals that may also be consulted, but are not required members of the team, may include the school nurse, school counselor, school psychologist and/or a coach/athletic director.*
Resources:	*Resources from other states:* Oregon Concussion Management Team *Resources from other school districts:* Cabarrus County Schools: Concussion Protocol Wake County Public School System: WCPSS Assisting Students with a Concussion WCPSS Concussion FAQ WCPSS Academic How To Plan of Care PPT WCPSS Academic Plan of Care

(c) Each LEA and charter school must provide information and staff development on an annual basis to all teachers and other school personnel in order to support and assist students who have sustained a concussion in accordance with their learning and behavioral needs. This annual training should include information on concussion and other brain injuries, with a particular focus on return-to-learn issues and concerns.

Explanation:	This annual updating will remind all school personnel of concussions and their impact on students' school functioning, the concussion policy, and the specific procedures developed by the school to implement the state concussion policy. This also will permit discussion of any needed changes to the district level procedures for assisting students who have sustained a concussion.

Examples of Implementation:	• *Presentation contains information regarding:*
	  ○ *What a concussion is and how it might manifest within the classroom*
	  ○ *Roles and responsibilities of designated staff members*
	  ○ *School procedures for return-to–learn*
	• *Presentation may be provided by student services at the beginning of each school year*
	• *Presentation might be delivered as schools are doing annual diabetes education or other annual education*
	• *Presentation may be delivered as an on-line tutorial for staff to watch at their convenience*
	• *Presentation of information as per the GWCA might also be included*

Resources:	*Websites:* Gfeller-Waller Concussion Awareness Act http://gfellerwallerlaw.unc.edu/GfellerWallerLaw/gwlaw.html Center for Disease Control - Heads-up Program: http://www.cdc.gov/headsup/schools/index.html Dr. Mike Evans - Concussion management and return to learn: https://www.youtube.com/watch?v=_55YmblG9YM American Academy of Neurology https://www.aan.com/concussion *Resources from other states:* Oregon http://cbirt.org/ocamp/resources/ Nebraska http://biane.org/audience/concussion/concussiontraining/concussion-management-training.html Colorado https://www.colorado.gov/pacific/cssrc/concussion-traumatic-brain-injury http://www.cde.state.co.us/sites/default/files/documents/healthandwellness/download/brain injury/finalconcussionguidelines8.22.12.pdf BrainSteps http://brainsteps.net/#resources *Resources from other school districts:* Wake County Public School System: Concussion Presentation Signs and Symptoms Concussion FAQs

(d) Each LEA and charter school will include in its annual student health history and emergency medical information update a question related to any head injury/concussion a student may have incurred during the past year.

Explanation:	A system of collecting information annually must be installed by all LEAs and charter schools. Each LEA and charter school must determine how this information should be gathered and housed. If the update indicates a previously unknown head injury, this should initiate the notification process of return-to-learn procedures.
Examples of Implementation:	• *Most schools have a student information card/document completed annually by the parent/guardian that provided updated contact and emergency information.* ○ *On the annual student information card/document, a question regarding current medical needs or past history of concussion could be included. For example, "Has your student experienced a head injury of any kind (e.g., concussion) in the past year?"* • *The medical information page in PowerSchool may also be used for documentation.*
Resources:	*Resources from other states:* Health History Form W/ Concussion Included http://www.rockbridge.k12.va.us/documents/health/student_health_history_form.pdf http://www.manhassetschools.org/site/handlers/filedownload.ashx?moduleinstanceid=285&dataid=282&FileName=Health Appraisal_Health History Code of Conduct 7-15.pdfh

APPENDIX A:

When to Consider Special Education Services for Children Who Sustain mTBI

It is undeniable that the needs of students who have suffered a mild traumatic brain injury (mTBI) are not yet fully addressed in the public school system. (Gioia, Glang, & Hooper, 2015; Halstead et al., 2013; Yeates et al., 2009). Research about the trajectories of students experiencing mTBI should steer state-wide concussion management policy development. These outcomes remain somewhat controversial due to the variability in longitudinal clinical and epidemiological evidence (McKinlay, 2010; Yeates, 2010). As of yet, there is "strikingly little evidence to guide overall management of mTBI in children" (Gioia et al., 2015, p. 3). Furthermore, Carroll et al. (2004) suggested that further study is necessary to determine the optimal educational models for recovery.

Although TBI is an eligibility category under IDEA legislation, its utilization remains strikingly low considering the high levels of clinical reports of TBIs in children. According to some estimates, 90% of TBI cases are mild and one in five children experience mTBI before age 16 (McKinlay, 2010). By contrast, in 2013 on .04% of IDEA children were determined eligible under the TBI category (www.disabilitycompendium.org/statistics/special-education). In the general population the rate of long term disability varies with the severity of the TBI (Whiteneck, Cuthbert, Corrigan, & Bogner, 2014). The rate of long term disability after TBI that does NOT require hospitalization is as of yet unknown. However, evidence from across multiple studies suggests that up to 36% of people who have sustained mTBI continue to report symptoms beyond three months, post-injury (Jantz, 2015). These symptoms fall into cognitive, behavioral, and physiological deficits, but symptoms reported have a tendency to be "vague" (Jantz, 2015, p. 238). Importantly, there is no research specific to the school age population with regard to these symptoms or the rate of children whose educational impact is such to require special education services (Jantz, 2015).

This may be partially explained by the complexity of recovery in mTBI (Gioia et al., 2015). It is widely agreed upon that most symptoms are transient in nature and resolve within 3 months of injury (Carroll et al., 2004; Jantz, 2015; McKinlay, 2010; Yeates et al., 2009). Gioia, Gland, and Hooper (2015) point out that most students will need academic supports for three or fewer weeks. By contrast, there exists evidence documenting instances where symptoms do not resolve, such that this may even constitute a coherent syndrome, post-concussive syndrome (PCS) (Yeates, 2010). Research on the prevalence of post-concussive symptomology in children is limited at the current time and more longitudinal research is needed (McKinlay, 2010).

The question remains, how many students who have experienced an mTBI have subsequently been found eligible for special education? No research could be found during this brief review that fully answered this question. Some guidance documents mention timelines for referral for IEP, however. Broad consensus indicates that an IEP is reserved for issues that are considered chronic, long term, and persistent (Halstead et al., 2013; Jantz, 2015). In the context of mTBI, specifically, this would constitute symptoms that persist for 6 months. After this amount of time the initiation of Child Find obligations is necessary (Halstead et al., 2013; Jantz, 2015). Other documents were found that recommend shorter periods, however. The BrainSteps program of Pennsylvania recommends a BrainSteps team referral after 8 weeks, which may result in the recommendation of a full evaluation for an IEP. Guidance published by Georgia Department of Public Health (choa.org/concussion) recommends an IEP evaluation after 28 days (p. 23).

Due to a lack of research, it is unclear how many children who sustain mTBI are subsequently referred for IDEA eligibility. Guidance documents appear to recommend variable timelines for referral ranging from 28 days to six months. The consensus based on this limited review of the literature, that symptoms that persist longer than 6 months should be considered for IDEA eligibility. This may help to address what may be a significant under-identification of IDEA eligible people with TBI. The continued implementation of effective monitoring and school based infrastructure may potentially help our understanding and will contribute to more accurate surveillance of this critical situation in the future.

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