

Information on Medical Basics/Medication

PSIA-RM-AASI Adaptive Snowboard 2012-13

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Local and program regulations and safety guidelines take precedence over this information. It is in your best interest to exercise due diligence in determining the appropriateness of the information for your particular circumstances. In addition, please take into account any and all factors that may affect your lesson. This includes but is not limited to: the health, well-being and fitness of the student; weather conditions; terrain; other people on the slope; your own abilities, as well as those of your student and anyone who may accompany you.

GENERAL INFORMATION

Medical Information:

Disabilities and medication can affect the cognitive (how a person thinks and communicates), affective (beliefs, behavior) and psychomotor (how a person balances and moves) aspects of a student. The instructor needs to know the basic signs and symptoms of each disability. Brief definitions are given for some disabilities. This is NOT an exhaustive list. Please refer to PSIA Adaptive Manual, Bold Track, 3rd edition and the study guide for further information.

Medications:

Always check to see what medication(s) the student is taking. Knowing the general classification to which the medication belongs and knowing why the medication is being taken is the first step in identification. Then one must discover the side effects and how that medication and/or condition for which it is being taken will affect the student on the hill.

While some of the common medications, as listed below and in Bold Tracks, 3rd edition will be recognized others will not. Neither list is exhaustive and new medications come out every year. If a medication is not recognized LOOK IT UP. The information is essential before going out on the hill. The listed medications are updates from the information given in the references. This is not an exhaustive list but a suggestion, please review medications in the RM Adaptive Educational Manual

Analgesic – relieves pain and discomfort. Can be aspirin like (Naprosyn) or an opioid (Percocet)

Antiarrhythmia – helps regulate heartbeat. Digoxin, Lanoxin

Antibiotic/Anti-infective (antibacterials fall into this category) - treats infection. Ampicillin, Macrodantin, erythromycin

Anticholinergic - relieves bladder spasms. Ditropan, Di-Spaz

Anticoagulants

Beta-Blocker and Calcium Channel Blocker - treat angina and hypertension. Procardia, Verapamil

Bronchodilator – relieves broncho-constriction. Proventil, Atrovent, Seravent

Carbonic Anhydrase Inhibitor (Antiglaucoma Agent) - regulate eye pressure. Pilocarpine, Timolol

Cardiac glycoside - affects the heart rate, rhythm and contractile force. Digoxin, Lanoxin

Insulin/Antidiabetic - controls diabetes. Humalin, Glucotrol, metformin

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Disability Related Complications/Concerns:

Each specific disability has certain complications and/or safety needs associated with it. Some, such as spinal stabilizers or shunts will be uncovered during the assessment. Activity and the environment may provoke others, such as sugar depletion in a diabetic or autonomic dysreflexia.

What ever the concern, the instructor must assess and anticipate these situations and know how to deal with them.

Evaluation/Practical Assessment:

The written medical history often contains a physical ability evaluation. Using this as a reference, a practical evaluation is done by the instructor. This allows the instructor to get a picture of how the student is functioning at the time of the lesson. Refer to the PSIA Adaptive Manual pgs.27-137, Bold Tracks, 3rd Ed.

Equipment:

Using results from the written evaluation and practical assessment the appropriate equipment is chosen. Equipment needs vary with each disability and individual. Some pieces of equipment are used solely within one specialty while others are used in a multitude of places.

For more complete information refer to the PSIA/AASI ASB Resource guide, PSIA Adaptive Manual pgs 27-137 and Bold Tracks 3rd Ed pgs.

Assists:

Disabled teaching often requires more of direct, hands-on approach than able-bodied riding. It is common to see an instructor assisting an adaptive rider during the lesson.

Assists are teaching tools. It is extremely important to execute these assists in the safest possible manner for the student, the instructor and the rest of the riding/skiing public.

No assist should be at a speed greater than that needed for a beginning turn. Speed should be controlled by turn shape, not a wedge on the part of the instructor.

For more complete information refer to the PSIA Adaptive Manual pgs 27-137 and Bold Tracks 3rd Ed pgs.

Teaching Tactics:

It is important to tailor teaching style to a student's learning style. Take the time to discover how a particular student learns. Do NOT talk down to any student whether they have a physical or cognitive disability. Demonstrate clearly and with the appropriate equipment. This, along with loading and unloading the chairlift with any type of equipment takes practice!!!

Get out and ski with/on the various pieces of equipment. Guide with a clear and loud voice, using simple words. Do not try to teach and guide at the same time. Finally, tether in a manner that is safe most of all for the instructor, but also the student and the riding/skiing public.

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DEFINITIONS: This is not an exhaustive list but a suggestion, please review definitions in the Rocky Mountain Adaptive Educational Manual.

- ⊗ **Congenital Conditions** - A condition that exists at or from birth. It may be hereditary or the result of disease or deficiency during pregnancy.
- ⊗ **Diabetes** – There are two types.
 - Insulin dependent diabetes mellitus** – also known as IDDM or type I diabetes. In this type the body cannot produce the needed insulin.
 - Non-Insulin dependent diabetes mellitus** – also known as NIDDM or type II diabetes. The term adult onset diabetes is no longer being used since more and more children are now acquiring this type of diabetes. In this type of diabetes the body produces the insulin but the cells cannot use it to effectively regulate blood sugar.
- ⊗ **Hyperglycemia** – High blood sugar. Severe hyperglycemia is diabetic coma.
- ⊗ **Hypoglycemia** – Low blood sugar. Severe hypoglycemia is insulin shock.
- ⊗ **Diplegia** – Paralysis of corresponding parts on both sides of the body.
- ⊗ **Quadriplegia/Tetraplegia** – Paralysis of all four limbs.
- ⊗ **Osteosarcoma** – Cancer of the bone.
- ⊗ **Progressive Disabilities** - Disabilities whose symptoms progress during the course of a person's life.

The following is a list of possible disabilities that could ride with each category, but there might be more.

SPECIALTY: Physical Stand-up Rider

AK (Above the Knee amputation)	Hemipelvectomy
BK (Below the Knee amputation)	Hip Disarticulation
Brain Trauma / Injuries	Osteosarcoma and other cancers
Cerebral Vascular Accident (CVA = Stroke)	Post Polio
Congenital anomalies of leg/foot	Spina Bifida
Arthrogryposis	Huntington's Disease
Amputations	Muscular dystrophy (MD)
Guillain-Barre Syndrome	and other progressive diseases
Plegias Diplegia, hemiplegia, paraplegia,	Spinal cord injuries (SCI)
Cerebral Palsy (CP)	Friedreich's Ataxia
(spastic, athetoid, ataxic)	
Cerebral Vascular Accident (CVA=Stroke)	Congenital anomalies of the leg and/or foot

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SPECIALTY: Visually Impaired/Blind

How the eye works	Hemiopia
Albinism	Legal Blindness
Brain injury	Macular Degeneration
Cataracts	Peripheral vision
Congenital eye defects	Retinal Damage
Corneal disease	Retinitis pigmentosa
Diabetes/Diabetic Retinopathy	Strabismus
Glaucoma	Tunnel Vision

SPECIALTY: Cognitive Related Disabilities

Alzheimer's	Developmental Delays
Autism	Epilepsy
ADD/ADHD	Fetal Alcohol Syndrome (FAS)
Brain Injury	Fragile X Syndrome
Cerebral Palsy	Hemiplegia
Spastic, flaccid, rigid, ataxic, athetoid	Learning Disabilities
Hemiplegia, diplegia, quadriplegia	Mental Retardation
Down syndrome	

SPECIALTY: Physical Sit-Down Disabilities

Amputations	Congenital anomalies
(BK, AK, Bilateral)	Hemipelvectomy
Brain Trauma / Injuries	Hip Disarticulation
Cerebral Vascular Accident (CVA = Stroke)	Osteosarcoma and other cancers
Congenital anomalies of leg/foot	Post Polio
Arthrogryposis	Spina Bifida
Guillain-Barre Syndrome	Huntington's Disease
Muscular dystrophy (MD)	(Other Progressive diseases)
Cerebral Palsy (CP)	Spinal Cord Injuries (SCI)
(spastic, athetoid, ataxic)	(Complete & Incomplete Injuries)
Cerebral Vascular Accident (CVA=Stroke)	Friedreich's Ataxia