

Appendix 3

Additional tables

Table A. Examples of mode of onset in Para athletes

Mechanism	Presentation	Para translation
Acute	Sudden	A Para snowboarder loses control, falls and collides with a safety netting pole, fracturing his tibia
Repetitive	Sudden	A single leg amputee sprinting for the finish line, suddenly falls and reports hearing a loud popping noise on her unaffected limb's side. Ultrasound reveals an acute Achilles tendon tear as well as long-standing Achilles tendinopathy
Repetitive	Gradual	A sitting volleyball player experiences a gradual increase in shoulder pain from chronic rotator-cuff tendinopathy

Table B. Recommended data collection categories of body regions and areas for injuries according to the IOC consensus and extended with body areas (stumps) that may be injured in amputee athletes.

Region	Body area
Head and neck	Head Neck
Upper limb	Shoulder Shoulder disarticulation Forequarter Upper arm Above elbow (transhumeral) Elbow Elbow disarticulation Forearm Below elbow (transradial) Wrist Wrist disarticulation Hand Partial hand (transcarpal)
Trunk	Chest Thoracic spine Lumbosacral Abdomen
Lower limb	Hip/groin Hemipelvectomy Hip disarticulation Thigh Above knee stump (transfemoral) Knee Knee disarticulation Lower leg Below knee stump (transtibial) Ankle Ankle disarticulation Foot Partial foot (Syme, Lisfranc, Chopart, transmetatarsal)
Unspecified	Region unspecified
Multiple regions	Single injury crossing two or more regions

Table C. Practical examples of how to calculate time loss

<i>Case</i>	<i>Time loss (days)</i>
A Para triathlete interrupts a training session due to a single episode of vomiting and returns to normal training the following day.	0
A wheelchair rugby player sustains a finger dislocation catching the ball. X-rays reveal a dislocated interphalangeal joint; the athlete agrees to having the finger reduced and strapped, and competes later that day.	0
'Intermittent' time loss: a track and field athlete with cerebral palsy hemiplegia reports an Achilles tendinopathy at the start of a training camp on Saturday. The Para athlete can train fully on Saturday, Sunday and Tuesday, but misses training on Monday and Wednesday (time loss counted as Monday and Wednesday only).	2
'Delayed' time loss: a visually impaired judoka sustains a quadriceps contusion on Saturday and is able to train on Sunday and Monday, unable to train on Tuesday, Wednesday and Thursday, but returns to training on Friday (time loss counted as Tuesday, Wednesday and Thursday).	3
A boccia player with cerebral palsy develops pneumonia during a competition and starts oral antibiotics. The Para athlete continues to compete, but two days later develops systemic symptoms and requires intravenous antibiotics in hospital. After two days hospital inpatient treatment the Para athlete is discharged home and takes 20 days to make a full recovery and be cleared by the general practitioner to start training again.	22
A visually impaired (blind) footballer sustains a head injury and is diagnosed with concussion. The team physician assesses the Para athlete to have returned to baseline after 15 days. The athlete is advised to commence a 'standard care setting graduated return to play' over the next 14 days after the footballer returns home from the tournament, before being cleared by the physician to commence full training/competition.	29
A Para alpine skier with one functioning arm falls and sustains mid-shaft fractures to their radius, ulnar and scaphoid, which require a total of 56 days in a cast. The orthopaedic surgeon recommends the Para athlete can safely return to training 10 weeks after removal of the cast with some additional protection. The skier becomes dependent on care with no functioning arms and struggles to access physiotherapy, not being able to get to the hospital and are left with persistent residual wrist stiffness. It takes 160 days for the Para athlete to get back to training after cast removal.	216

Table D. Recommendations for Para sport-specific exposure measures

Para sports (as per IPC)	Competition exposure measure(s)	Time exposure
Alpine Skiing	# of races	Minutes
Archery	# of shots	Hours
Athletics	# of competitions # of rounds Distance covered	Minutes
Badminton	# of matches	Hours
Boccia	# of shots	Hours
Canoe	Distance covered	Hours
Cycling		
Road Cycling	Distance covered	Hours
Track Cycling	# of races Distance covered	Minutes/Hours
Equestrian	# of rides	Minutes/Hours
Football 5 a side	# of matches	Hours
Goalball	# of matches	Hours
Judo	# of matches # of bouts/fights	Minutes
Nordic Skiing	Distance covered	Hours
Para Ice Hockey	# of matches	Hours
Powerlifting	# of lifts # of rounds	Minutes
Rowing	Distance covered	Hours
Shooting	# of shots	Hours

Sitting Volleyball	# of matches	Hours
Snowboard	# of races	Minutes
Swimming	Distance covered	Hours
Table Tennis	# of matches	Hours
Taekwondo	# of matches # of bouts/fights	Minutes
Triathlon	Distance covered (separately for the 3 disciplines)	Hours
Wheelchair Basketball	# of matches	Hours
Wheelchair Curling	# of matches	Hours
Wheelchair Fencing	# of matches # of bouts/fights	Minutes
Wheelchair Rugby	# of matches	Hours
Wheelchair Tennis	# of matches, sets, or games	Hours
