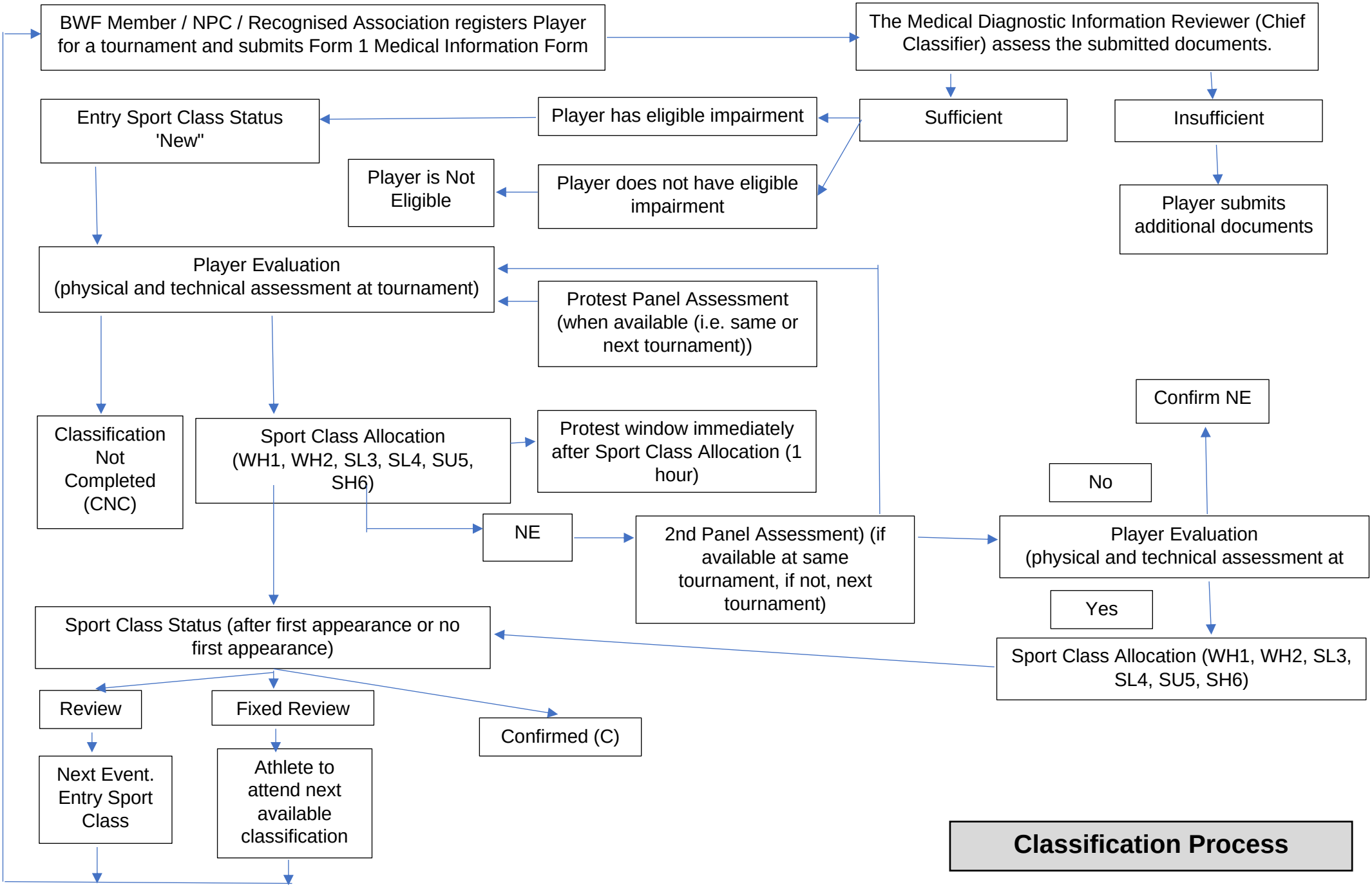
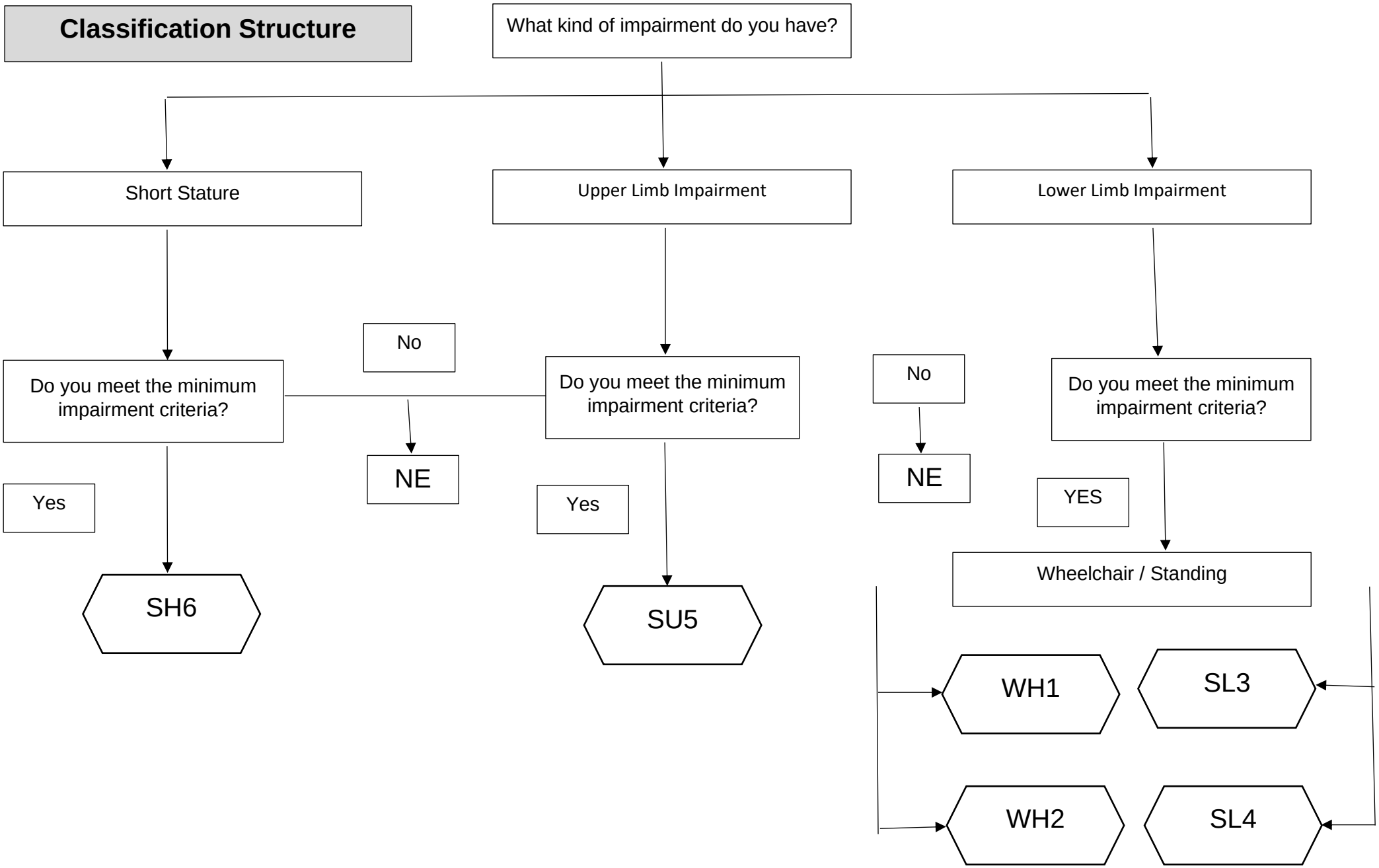


Classification Process


Classification Structure
What kind of impairment do you have?
Short Stature
Upper Limb Impairment
Lower Limb Impairment
Do you meet the minimum impairment criteria?
No
NE
Yes
SH6
Do you meet the minimum impairment criteria?
Yes
SU5
No
NE
Do you meet the minimum impairment criteria?
YES
Wheelchair / Standing
WH1
SL3
WH2
SL4

Appendix 2 - Minimal Impairment Criteria for Playing Wheelchair Badminton

Profile descriptions:

Wheelchair 1 players profile description

Players demonstrate a limitation in function based on muscle power and range of motion of the trunk and possibly upper limbs while performing during match or training.

Wheelchair 2 player profile description

Players demonstrate a limitation in function based on limited muscle power or range of motion, requiring the use of assistive devices in walking. A shift in the centre of gravity may lead to loss of balance e.g. attempting to pivot or stop and start.

Eligible Impairment Type	Examples of health conditions	Sport Class WH 2	Sport Class WH 1
Hypertonia	Cerebral palsy, stroke, acquired brain injury, multiple sclerosis.	Spastic/ataxic/athetoid hemiplegia/ diplegia/ quadriplegia with severe involvement of lower limb but with no or mild involvement of upper limbs or trunk.	Spastic/ataxic/athetoid hemiplegia/diplegia/ quadriplegia with marked involvement of lower limb but with mild to moderate impairment of upper limbs or trunk.
----------	----------		
Ataxia	Ataxia resulting from cerebral palsy, brain injury, Friedreich's ataxia, multiple sclerosis, spinocerebellar ataxia	Demonstrate a limitation in function based on spasticity, ataxia, athetosis or dystonic movements on the legs requiring the use of assistive devices in walking. A shift of centre of gravity may lead to loss of balance e.g. attempting to pivot or stop and start.	Demonstrate a limitation in function based on spasticity, ataxia, athetosis or dystonic movements of upper limb or and trunk while performing during match or training.
----------	----------	Clear evidence must include spasticity grade 3 on the legs usually rendering them non-functional for ambulation over a long distance without the use of assistive devices. A wheelchair is usually the choice for sport.	
Athetosis	Cerebral palsy, stroke, traumatic brain injury		

Eligible Impairment Type	Examples of health conditions	Sport Class WH 2	Sport Class WH 1
Limb deficiency	Amputation resulting from trauma or congenital limb deficiency (dysmelia)	Player must have ONE of the following criteria: **1.** Unilateral amputation above the knee with a stump length not more than half of the upper leg measured on the non-amputated leg from the spina iliaca anterior superior (ASIS) to the medial knee (mid joint on medial site) articulation. *Stump should be measured from ASIS to the end of the bony part on the medial side (by palpation). **2.** Bilateral amputation: one amputation through or above the knee and the other below the knee (ankle completely missing). Equivalent congenital limb deficiency equivalent point 1 or 2 above.	Player must have ONE of the following criteria: 1. Same criteria as WH2 plus involvement of at least one upper limb with the same minimal criteria for the playing and non-playing arm or the scoliosis criteria (or equivalent spinal deformity); *Scoliosis criteria ≥ 60 degree (by x-ray or inclinometer). OR 2. Double above knee amputation, without significant improvement in trunk balance once Player is seated in their sports chair. Other Players with double above knee amputations who are eligible to play in wheelchair will play in WH2.
Impaired Passive Range of Movement (PROM)	Arthrogryposis, ankylosis, post burns joint contractures	Impairment of PROM that meets FIVE (5) of the following criteria in one lower limb: Criterion #1 – Hip flexion deficit of >45 degree.	Same criteria as WH2 plus involvement of at least one upper limb with the same minimal criteria for the playing and non-playing arm or the scoliosis criteria. – continue next page Or

Eligible Impairment Type	Examples of health conditions	Sport Class WH 2	Sport Class WH 1
		Criterion #2 – Hip Extension deficit of >25 degree. Criterion #3 – Knee Flexion deficit of >60 degree. Criterion #4 – Knee Extension deficit of >30 degree. Criterion #5 – Less than or equal to 10-degree ankle dorsiflexion and a maximal ankle PROM of 10 degree. Criterion #6 – Less than or equal to 20-degree plantar flexion and a maximal ankle PROM of 10 degree.	At least eight (8) criteria in both lower limbs: Criterion #1 – Hip flexion deficit of >45 degree. Criterion #2 – Hip Extension deficit of >25 degree. Criterion #3 – Knee Flexion deficit of >60 degree. Criterion #4 – Knee Extension deficit of >30 degree. Criterion #5 – Less than or equal to 10 degree ankle dorsiflexion and a maximal ankle PROM of 10 degree. Criterion #6 – Less than or equal to 20 degree plantar flexion and a maximal ankle PROM of 10 degree.
Impaired Muscle Power	Spinal cord injury, muscular dystrophy, brachial plexus injury, Erb palsy, polio, spina bifida, Guillain-Barré syndrome	Impairment of Muscle power that meets FIVE (5) of the following criteria in one lower limb or FOUR in one leg and TWO (2) in the other leg. Criterion #1 – Hip flexion loss of 3 muscle grade points (muscle grade of two).	Same criteria as WH2 plus involvement of at least one upper limb with the same minimal criteria for the playing and non-playing arm or the scoliosis criteria. Or At least 14 criteria in both lower limbs:

Eligible Impairment Type	Examples of health conditions	Sport Class WH 2	Sport Class WH 1
		Criterion #2 – Hip extension loss of 3 muscle grade points (muscle grade of two) Criterion #3 – Hip Abduction loss of 3 muscle grade points (muscle grade of two). Criterion #4 – Hip Adduction loss of 3 muscle grade points (muscle grade of two). Criterion #5 – Knee extension loss of 3 muscle grade points (muscle grade of two). Criterion #6 – Knee flexion loss of 3 muscle grade points (muscle grade 2) Criterion #7 – Ankle plantar flexion loss of 3 muscle grade points (muscle grade of two). Criterion #8 – Ankle dorsi flexion loss of 3 muscle grade points (muscle grade of two) Or Complete paraplegia L2 and below (neurological L2)	Criterion #1 – Hip flexion loss of 3 muscle grade points (muscle grade of two). Criterion #2 – Hip extension loss of 3 muscle grade points (muscle grade of two) Criterion #3 – Hip Abduction loss of 3 muscle grade points (muscle grade of two). Criterion #4 – Hip Adduction loss of 3 muscle grade points (muscle grade of two). Criterion #5 – Knee extension loss of 3 muscle grade points (muscle grade of two). Criterion #6 – Knee flexion loss of 3 muscle grade points (muscle grade 2) Criterion #7 – Ankle plantar flexion loss of 3 muscle grade points (muscle grade of two). Criterion #8 – Ankle dorsi flexion loss of 3 muscle grade points (muscle grade of two) Or Complete paraplegia L1 and above (neurological L1)

Eligible Impairment Type	Examples of health conditions	Sport Class WH 2	Sport Class WH 1
Leg length difference	Congenital or traumatic cause of bone shortening in one leg	Comparable to limb deficiency	Comparable to limb deficiency.

Note: The minimal impairment criteria must be accompanied by the trunk balance assessment and the technical assessment on the court. The trunk balance, in general, should be good in WH2 and poor in WH1.

Appendix 3 - Minimal Impairment Criteria for Playing Standing Badminton with Impairment at the Lower Limb

Eligible Impairment Type	Examples of health conditions	Sport Class SL4	Sport Class SL3
Hypertonia **----------** **Ataxia** **----------** **Athetosis**	Cerebral palsy, stroke, acquired brain injury, multiple sclerosis ---------- Ataxia resulting from cerebral palsy, brain injury, Friedreich's ataxia, multiple sclerosis, spinocerebellar ataxia ---------- Cerebral palsy, stroke, traumatic brain injury	Spastic/ataxic/athetoid hemiplegia/ diplegia/ quadriplegia/ monoplegia with moderate involvement of lower limb but with no or very mild involvement of upper limbs. Demonstrate a limitation in function based on spasticity, ataxia, athetosis or dystonic movements while performing during match or training. The Player may walk with a slight limp but runs more fluidly. Clear evidence must include spasticity grade 1-2 in the affected limbs (at least one leg must be affected). A clear difference needs to be demonstrated between active ranges of motion vs. passive. In addition, a clear difference between fast PROM against slow PROM needs to be demonstrated. Plus ONE of these signs: 1. Upper motor neuron reflex pattern must be demonstrated (one of these signs): • Positive unilateral babinski • Clear unilateral clonus 4 beats or more • Noticeably brisk reflexes or clear difference in reflexes left vs. right leg	Spastic/ataxic/athetoid hemiplegia/diplegia/ quadriplegia with marked involvement of lower limb but with no or only mild impairment of upper limbs. Demonstrate a limitation in function based on spasticity, ataxia, athetosis or dystonic movements while performing during match or training. The Player walks or runs with a limp due to spasticity in the lower limb. Clear evidence must include spasticity grade 2-3 in the affected lower limb. A clear difference needs to be demonstrated between active ranges of motion vs. passive. In addition, a clear difference between fast PROM against slow PROM needs to be demonstrated. The Player has difficulty walking on his heel on the impaired side and has significant difficulty with hopping and balancing and side stepping on the impaired leg or side. Plus ONE of these signs: 1. Upper motor neuron reflex pattern must be demonstrated (one of these signs): • Positive unilateral 41 babinski

Eligible Impairment Type	Examples of health conditions	Sport Class SL4	Sport Class SL3
		2. Irregular migrating contraction (chorea) and/or writhing movements (athetoid) 3. Leg length difference and/or difference of muscle bulk of more than 2 cm 4. 4. Dysmetria and/or dyssynergia In monoplegia the hip joint must be involved with limitations in PROM or difference in ROM active versus passive. For ataxia and athetosis the Player must have clear signs of cerebellar dysfunction with incoordination of the lower limb. Shows moderate difficulty in stopping, starting, turning, balance and explosive movements.	• Clear unilateral clonus 4 beats or more • Noticeably brisk reflexes or clear difference in reflexes left vs. right leg 2. Irregular migrating contraction (chorea) and/or writhing movements (athetoid) 3. Leg length difference and/or difference of muscle bulk of more than 2 cm 4. Dysmetria and/or dyssynergia For ataxia and athetosis the Player must have clear signs of cerebellar dysfunction with incoordination of the lower limb. Shows marked difficulty in stopping, starting, turning, balance and explosive movements
Limb Deficiency	Amputation resulting from trauma or congenital limb deficiency (dysmelia).	1. Unilateral amputation of half of the foot, measured on the non-amputated foot from the tip of the great toe to the posterior aspect of calcaneus. 2. Equivalent to the above description.	1. Unilateral amputation through or above the knee (AK amputation). 2. Double below knee (BK) amputation. Equivalent congenital limb deficiency or dysmelia that is similar to Point 1 or 2 above.

Eligible Impairment Type	Examples of health conditions	Sport Class SL4	Sport Class SL3
Impaired Passive Range of Movement (PROM)	Aarthrogryposis, ankylosis, post burns joint contractures)	Impairment of PROM that meets TWO (2) of the following criteria in one or both lower limbs: Criterion #1 – Hip flexion deficit of >45 degree. Criterion #2 – Hip Extension deficit of >25 degree. Criterion #3 – Knee Flexion deficit of >60 degree Criterion #4 – Knee Extension deficit of >30 degree. Criterion #5 – Less than or equal to 10 degree ankle dorsiflexion and a maximal ankle PROM of 10 degree Criterion #6 – Less than or equal to 20 degree plantar flexion and a maximal ankle PROM of 10 degree	Impairment of PROM that meets FOUR (4) of the following criteria in one or both lower limbs Criterion #1 – Hip flexion deficit of >45 degree. Criterion #2 – Hip Extension deficit of >25 degree. Criterion #3 – Knee Flexion deficit of >60 degree Criterion #4 – Knee Extension deficit of >30 degree. Criterion #5 – Less than or equal to 10 degree ankle dorsiflexion and a maximal ankle PROM of 10 degree Criterion #6 – Less than or equal to 20 degree plantar flexion and a maximal ankle PROM of 10 degree Or THREE (3) criteria of PROM Plus ONE criteria of Impaired muscle power or leg length deficiency of 4 cm

Eligible Impairment Type	Examples of health conditions	Sport Class SL4	Sport Class SL3
Impaired muscle power	Spinal cord injury, muscular dystrophy, brachial plexus injury, Erb palsy, polio, spina bifida.	Impairment of Muscle power that meets TWO (2) of the following criteria in one or both limbs: Criterion #1 – Hip flexion loss of 3 muscle grade points (muscle grade of two). Criterion #2 – Hip extension loss of 3 muscle grade points (muscle grade of two) Criterion #3 – Hip Abduction loss of 3 muscle grade points (muscle grade of two). Criterion #4 – Hip Adduction loss of 3 muscle grade points (muscle grade of two). Criterion #5 – Knee flexion loss of 3 muscle grade points (muscle grade of two) Criterion #6 – Knee extension loss of 3 muscle grade points (muscle grade of two). Criterion #7 – Ankle plantar flexion loss of 3 muscle grade points (muscle grade of two). Criterion #8 – Ankle dorsiflexion loss of 3 muscle grade points (muscle grade of two) Or	Impairment of Muscle power that meets FOUR (4) of the following criteria in one or both limbs: Criterion #1 – Hip flexion loss of 3 muscle grade points (muscle grade of two). Criterion #2 – Hip extension loss of 3 muscle grade points (muscle grade of two) Criterion #3 – Hip Abduction loss of 3 muscle grade points (muscle grade of two). Criterion #4 – Hip Adduction loss of 3 muscle grade points (muscle grade of two). Criterion #5 – Knee flexion loss of 3 muscle grade points (muscle grade of two) Criterion #6 – Knee extension loss of 3 muscle grade points (muscle grade of two). Criterion #7 – Ankle plantar flexion loss of 3 muscle grade points (muscle grade of two). Criterion #8 – Ankle dorsiflexion loss of 3 muscle grade points (muscle grade of two) Or THREE (3) criteria of PROM

Eligible Impairment Type	Examples of health conditions	Sport Class SL4	Sport Class SL3
		Back and Torso: Severely reduced mobility of a permanent nature, for example scoliosis measuring over 60 degrees curve as measured by the Cobb method. X-ray proof is necessary.	Plus ONE criteria of Impaired muscle power or leg length deficiency of 4 cm
Leg length difference	Congenital or traumatic cause of bone shortening in one leg	The difference in length between right and left leg should be at least 7 cm. Measurements to be taken from the inferior aspect of the anterior superior iliac spine to the most medial tip of medial malleolus on same side.	Leg length difference equivalent to single above knee amputation

Appendix 4 - Minimal Impairment Criteria for Playing Standing Badminton with Impairment at the Upper Limb

Eligible Impairment Type	Examples of health conditions	Sport Class - SU5	
		Non-playing arm	Playing arm
Hypertonia ----------	Cerebral palsy, stroke, acquired brain injury, multiple sclerosis ----------	Spastic/ataxic/athetoid hemiplegia/ diplegia/ monoplegia with moderate involvement of upper limb but very mild involvement of lower limbs. Demonstrate a limitation in function based on spasticity, ataxia, athetosis or dystonic movements while performing during match or training. ----------	If only playing arm impairment then same criteria as for non-playing arm.
Ataxia ----------	Ataxia resulting from cerebral palsy, brain injury, Friedreich's ataxia, multiple sclerosis, spinocerebellar ataxia ----------	Clear evidence must include spasticity grade 1-2 in the affected upper limb. A clear difference needs to be demonstrated between active ranges of motion vs. passive. In addition, a clear difference between fast PROM against slow PROM needs to be demonstrated. ----------	
Athetosis	Cerebral palsy, stroke, traumatic brain injury	Plus Upper motor neuron reflex patter must be demonstrated: Clear unilateral clonus 4 beats or more	

Eligible Impairment Type	Examples of health conditions	Sport Class - SU5	
		Non-playing arm	**Playing arm**
		Noticeably brisk reflexes or clear difference in reflexes non-playing vs. playing arm Dysdiadokokinesis Dyssynergia and dysmetria In arm monoplegia the elbow must be involved with limitations in ROM. For ataxia and athetosis the Player must have clear signs of cerebellar dysfunction with incoordination of the upper limb.	
Limb deficiency	Amputation resulting from trauma or congenital limb deficiency (dysmelia)	To be eligible to compete in this class Players must have ONE of the following patterns of impairment: 1. Unilateral amputation, through or above wrist (i.e., no carpal bones present in affected limb). 2. Unilateral dysmelia in which the length of the affected arm measured from acromion to fingertip is equal in length or shorter than the combined length of the humerus and the radius of the unaffected arm.	To be eligible to compete in this class Players must have ONE of the following patterns of impairment: i) complete amputation of at least 3 digits excluding the thumb from at least the metacarpophalangeal joint, than no strapping of the racket to the hand allowed ii) complete amputation of at least 4 digits excluding the thumb from at least the metacarpophalangeal joint than strapping of the racket allowed

Eligible Impairment Type	Examples of health conditions	Sport Class - SU5	
		Non-playing arm	**Playing arm**
			iii) amputation of thumb and thenar eminence, iv) equivalent congenital deformity.
Impaired Passive Range of Movement (PROM)	Arthrogryposis, ankylosis, post burns joint contractures	A unilateral upper limb impairment of PROM that meets THREE (3) of the following criteria. i) shoulder abduction <60^0 available in the range ii) shoulder limitation of PROM in the plane of forward flexion (≤60^0) iii) shoulder limitation of PROM in the plane of extension (≤20^0) iv) elbow extension deficit of > 70^0 v)ankylosis of the elbow >80^0 flexion *Wrist arthrodesis or ankylosis is not eligible on the non-playing arm side.*	Meets ONE (1) of the criteria i) shoulder abduction < 90° ii) shoulder forward flexion of < 90° iii) shoulder horizontal extension of < 40^o iv) shoulder external rotation (when arm abducted to 90^0) achieving < 60° v) elbow extension deficit of ≥45^o or ankylosis in any position vi) wrist ankylosed in ≥50^0 flexion or extension. vii) any four digits with ≤10^0 of flexion / extension at the metacarpophalangeal joint.

Eligible Impairment Type	Examples of health conditions	Sport Class - SU5	
		Non-playing arm	Playing arm
Impaired Muscle Power	Spinal cord injury, muscular dystrophy, brachial plexus injury, Erb palsy, polio, spina bifida.	A unilateral upper limb impairment of muscle power that meets THREE (3) of the following criteria: i) shoulder abduction loss of 3 muscle grade points (i.e., grade 2 shoulder abductors). ii) shoulder forward flexion loss of 3 muscle grade points (i.e., grade 2 shoulder forward flexion). iii) shoulder extension loss of 3 muscle grade points (i.e., grade 2 shoulder extension). iv) loss of 2 muscle grade points in elbow flexion AND extension (i.e., grade 3 elbow extensors and flexors).	Meets ONE (1) of the following criteria: i) shoulder abduction loss of 3 muscle grade points (i.e., grade 2 shoulder abductors). ii) shoulder forward flexion loss of 3 muscle grade points (i.e., muscle grade of two). iii) shoulder internal rotation loss of 3 muscle grade points (i.e., muscle grade of two). iv) shoulder external rotation loss of 3 muscle grade points (i.e., muscle grade of 2). v) elbow flexion loss of 3 muscle grade points (i.e., muscle grade of 2). vi) elbow extension loss of 3 muscle grade points (i.e., muscle grade of two).

Appendix 5 - Minimal Impairment Criteria for Playing Standing Badminton with Impairment of short stature

Eligible Impairment Type	Examples of health conditions	Sport Class SH6
Short Stature *(achondroplasia or other)*	Aberrant dimensions of bones of upper and lower limbs or trunk which will reduce standing height	Player must be older than >13 years of age If the player is younger than 18 s/he must prove their chromosomal disorder diagnosis related to short stature. The player must meet the same criteria below and classification measurements will be completed at each competition until the age of 18 *For males:* o Maximum standing height </=145cm and o Arm length </=66 cm and o Sum of standing height plus arm length </=200cm *For females:* o Maximum standing height </=137cm and o Arm length </= 63 cm and o Sum of standing height plus arm length </=190cm

- **Maximum standing height:** measured in standing position bare foot against the wall.
- **Arm length:** measured from the acromion to the tip of the longest finger of the longest arm. The measure should be taken regardless of elbow contracture because the effective length of the arm is reduced by such an impairment.