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## **IPC Swimming Summit Submission by Canadian Paralympic Committee and Swimming/Natation Canada**

**Theme: Sports Science**

**Topic: Integration of Sport Science into National and International  
Competitions and Other Related Issues**

### **Background and History:**

- The accreditation of sport scientists (exercise physiologists, biomechanists, video analysts, etc.) needs to be an authorization/accreditation process which is more official and less demanding.
- Presently, anyone wishing to conduct video-analysis or lactate testing at IPC approved competitions must request authorization from the IPC for each individual competition 90-120 days in advance of the competition.
- The authorization form is very specific as to the procedures which must be followed and by whom the procedures are to be performed by. It has been observed that while many countries complete these forms, the person listed on the form as the individual conducting the testing or filming is not the person on site at the competition and may not even be trained in the testing protocols they are required to use.
- Research in the area of disability sport has been sparse and as a result may limit performance in the future.

### **Considerations:**

- Need to a standardized authorization/ accreditation process for sport scientists at IPC Swimming events.
- Need for shorter timelines for approval process for Sport Scientists.
- Need for ability to change Sport Scientists prior to competition
- Need to develop an IPC Swimming Sport Science Committee to promote the research and development of swimming science to allow the world to

swim faster. Sport science integration and effectiveness will assist in moving the sport of swimming (and all IPC sports) forward

- Areas of research and development need to be pursued to optimize in-water training, strength and conditioning, as well as other forms of neuromuscular assistance.
- Can sport science and classification cooperate to improve IPC swimming?

### **Recommendations:**

- IPC needs to perform an accreditation process of sport scientists so that only qualified individuals who have a national or international accreditation (such as MSc. in exercise physiology (for lactate testing) or biomechanics (for race analysis), ACSM accreditation, etc.) are allowed to perform their analyses at all IPC approved competitions.
- Once an individual has been accredited by the IPC, that person should not have to submit to IPC a request to conduct analyses as long as they are the individual conducting the analyses.
- An individual may be required to submit a letter to the IPC Sport Science and Sport Medicine Coordinator 14 days in advance that they will be attending a competition and conducting specific analyses
- IPC swimming needs to have a funded sport science committee whose role would be to disseminate information to the National Paralympic Committees on a regular basis with regards to “best practices” as they relate to training methodology such as periodization, or strength and conditioning of specific disabilities.
- VISTA sport science conference must be held on a more regular basis, such as once every two years, such as the year after each of the winter and summer Paralympics.
- Race analysis of the Paralympics and IPC World Swimming Long Course Championships must be conducted using specialists and provided to all National Swimming Organizations. This will “level” the playing field to a



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large extent as coaches will then be able to determine what the stroke rate and stroke length of the top level swimmers in a specific class are competing at, allowing coaches to have a goal in the development of these skills in their swimmers.

- Sport scientists and classifiers work cooperatively with identified areas or disabilities of concern, and with a thorough process over the next quadrennial, these groups perfect the classification process to eliminate as many concerns as possible.