

International
Paralympic Committee

Medical Issues Specific to the Paralympic Athlete

Jan Lexell, MD PhD

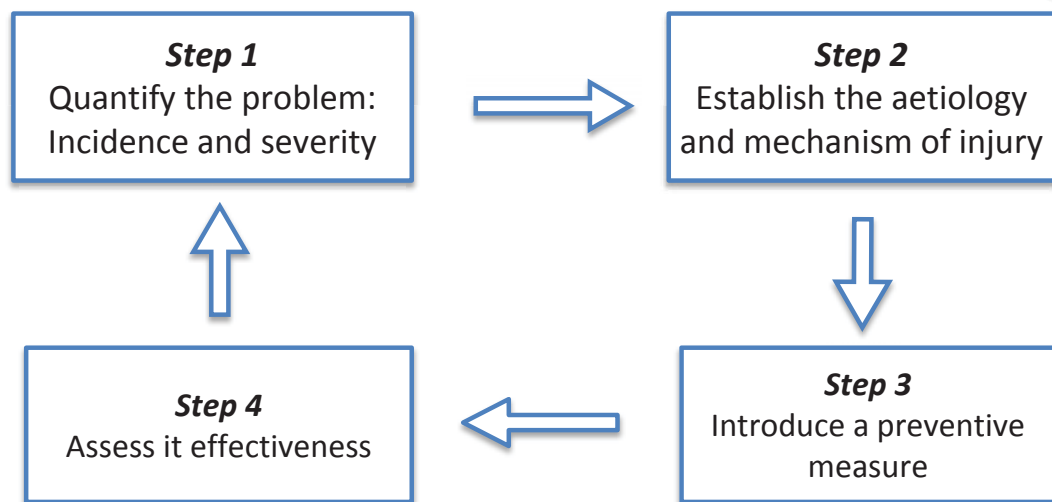


International
Paralympic
Committee





Developing prevention programs





IPC Injury and Illness Prevention Study



IPC INJURY AND ILLNESS PREVENTION STUDY LONDON 2012 PARALYMPIC GAMES

International Paralympic Committee
Version 1.2.006
USER : Team Doctor (AFG)
TEAM : Afghanistan Paralympic Committee

Injury/Illness Calendar : AFG

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Welcome back!

Thank you for your ongoing commitment to this project. If you experience any problems with data entry please [contact us](#).

Step 1 : Select one of the three options below.

- Record an INJURY for the team today (or on the date selected below)
- Record an ILLNESS for the team today (or on the date selected below)
- No Injuries or Illnesses are recorded for the team today (or on the date selected below)

Step 2 : Click on the date in the calendar below on which you wish to report an injury or illness.

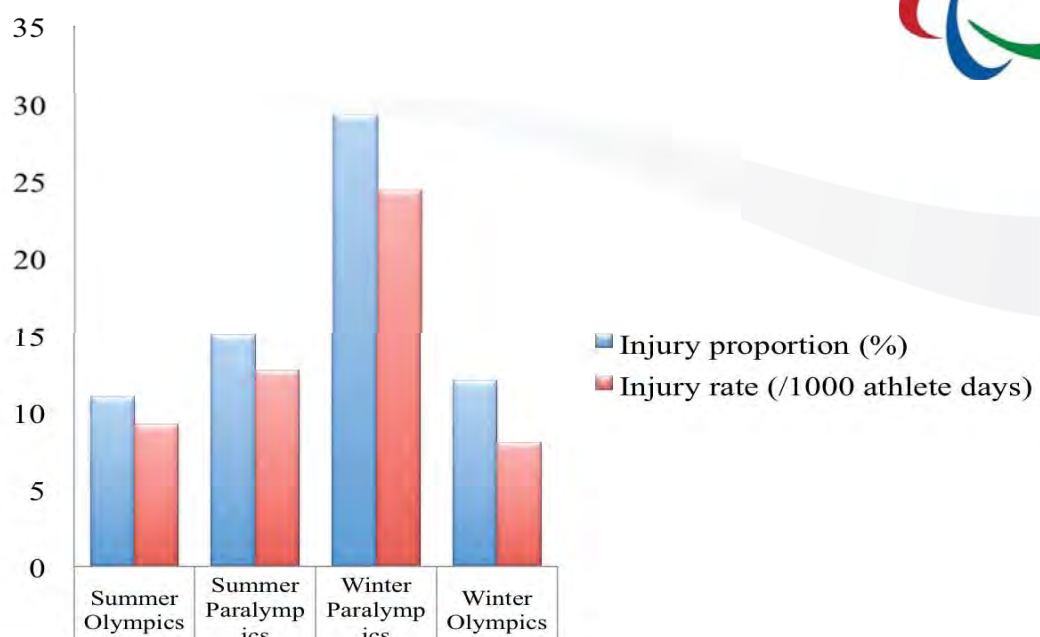
Month/Year	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Key
August 2012	06	07	08	09	10	11	12	Red Data INCOMPLETE (past days)
September 2012	19	20	21	22	23	24	25	Yellow Data INCOMPLETE (today)
	26	27	28	29	30	01	02	Green Data COMPLETE
	03	04	05	06	07	08	09	Grey Future days



IPC Injury and Illness Prevention Study

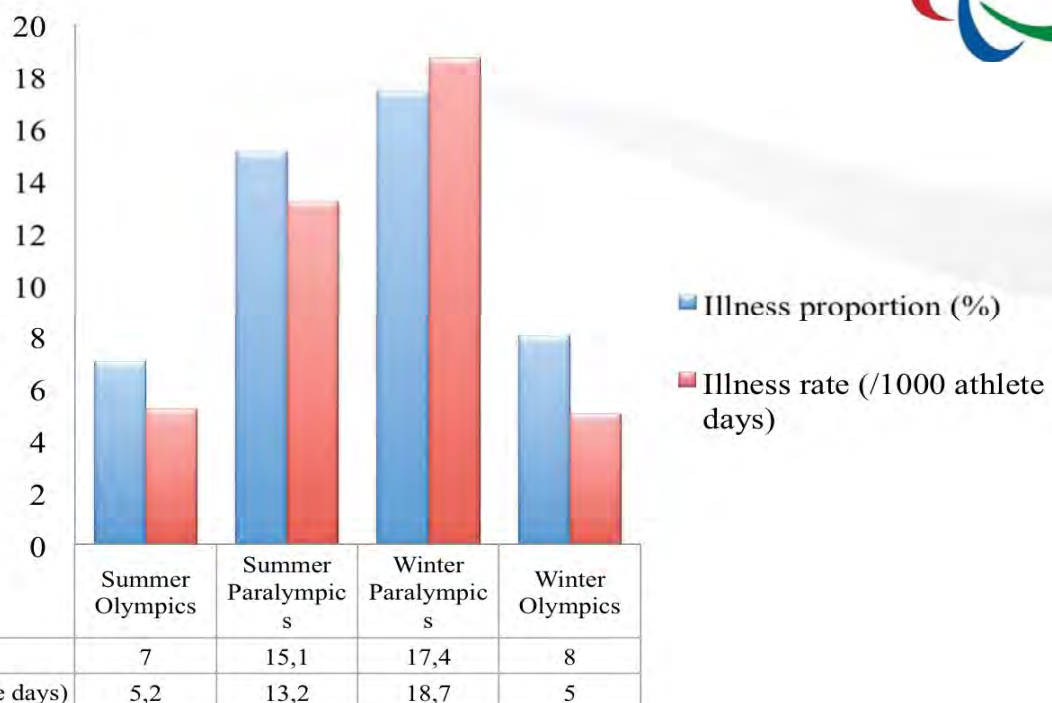
Factors associated with illness in athletes participating in the London 2012 Paralympic Games: a prospective cohort study involving 49 910 athlete-days

Martin Schwellnus,^{1,2} Wayne Derman,^{1,2} Esme Jordaan,³ Cheri A Blauwet,^{4,5} Carolyn Emery,^{6,7} Pia Pit-Grosheide,⁵ Norma-Angelica Patino Marques,^{8,5} Oriol Martinez-Ferrer,^{5,9} Jaap Stomphorst,^{10,5} Peter Van de Vliet,^{5,11} Nick Webborn,¹² Stuart E Willick,^{5,13}



Injury proportion (%)	11	15	29,3	12
Injury rate (/1000 athlete days)	9,2	12,7	24,4	8

Schwellnus M, et al. Br J Sports Med 2013



Schwellnus M, et al. Br J Sports Med 2013



Incidence rate of illnesses

System	Competition period	
	N	IR
Respiratory	138	3.52 (2.96 to 4.16)
→ Skin and subcutaneous tissue	91	2.32 (1.87 to 2.85)
Digestive	74	1.89 (1.48 to 2.37)
Nervous system	44	1.12 (0.82 to 1.51)
→ Genitourinary	38	0.97 (0.69 to 1.33)
Ears and mastoid	32	0.82 (0.56 to 1.15)

Schwellnus M, et al. Br J Sports Med 2013



Findings from Paralympics 2012

- Age and gender were not independent predictors of illness in Paralympic athletes
- Illness rates generally higher than studies in able-bodied athletes
- Overall respiratory illnesses most common but...
- Non-respiratory illnesses overall are more common than respiratory - higher than studies in able-bodied athletes
- UTI much more common than in Olympians
- Skin and subcutaneous tissue were the most commonly affected system in wheelchair basketball, powerlifting and sitting volleyball



Incidence proportion (IP)

- Sports with IP >20%
 - Athletics (21.5%)
 - Equestrian (29%)
 - Powerlifting (22.1%)
 - Table tennis (21.2%)
- Sports with IP <10%
 - Football 7-a-side (3.1%)
 - Shooting (6.1%)

Incidence proportion = number of reported illnesses i relation to the number of athletes



Impairment Classes with most Illnesses

- Spinal cord injury (30%)
- Amputation/limb deficiencies (26.5%)
- Visual impairments (19%)
- CP, Les autres (24,5%)





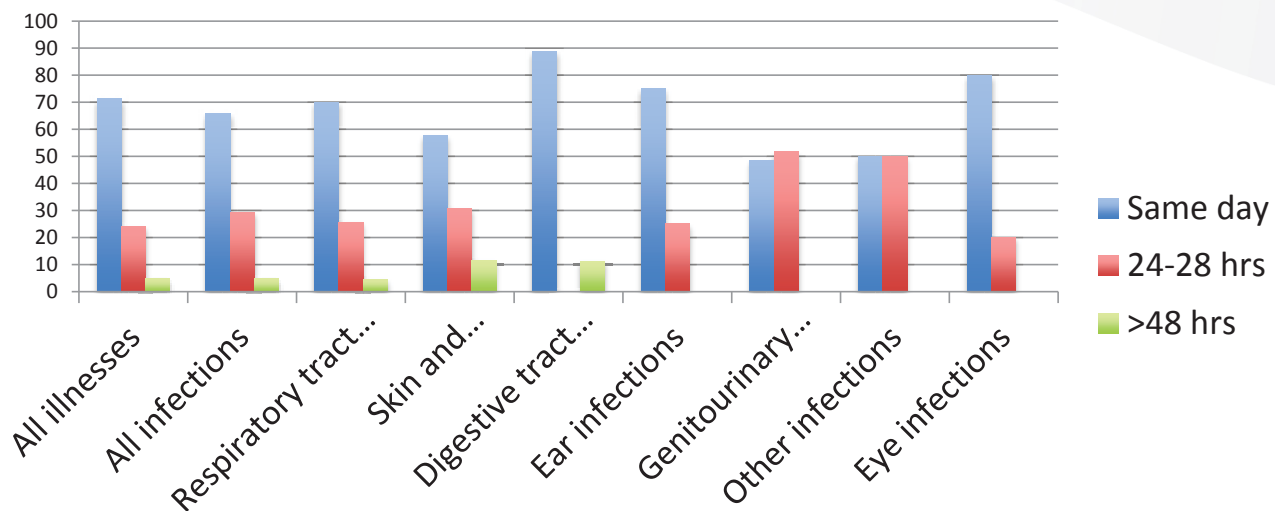
Illnesses in impairment classes

- Skin and subcutaneous illnesses
 - Spinal cord injured (46.7%)
 - Amputation/limb deficiency (31%)
- Urinary tract infection (UTI)
 - Spinal cord injured (77.4%)



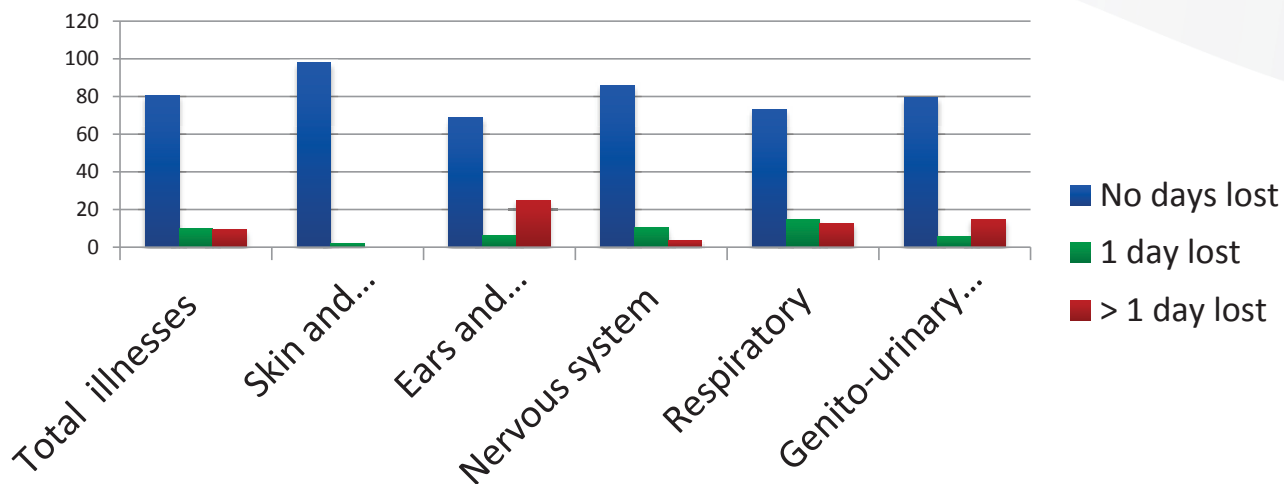


When do athletes report illnesses?





How severe are the illnesses?





In summary...

- Illnesses are common in paralympic athletes (high incidence)
 - Incidence of illness similar in pre-competition vs competition period
 - The spectrum of illnesses is different
 - Most common are respiratory but non-respiratory illnesses (especially UTI and Skin & GIT) are common
 - Participation in athletics is a risk factor
 - Age and gender are not independent predictors
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In summary...

- Spinal injured and amputees are at risk of these illnesses
 - Most illnesses are infections
 - Don't forget allergy
 - Athletes (esp SCI) may not display the usual symptom patterns (vague)
 - High index of suspicion
 - Paralympic athletes report late to the physician
 - 20% time loss illness!
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For the future!

- Athletes with an impairment might be more vulnerable to illnesses by nature of their underlying impairment
 - Detailing incidence and diagnostics of illness is therefore of significant clinical relevance for this population, and will allow for tailored prevention and intervention strategies
 - Particularly important given the self-management and delayed reporting to medical caretakers by Paralympic athletes
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Fagher et al. *BMC Sports Science, Medicine and Rehabilitation* (2016) 8:28
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BMC Sports Science,
Medicine and Rehabilitation

STUDY PROTOCOL

Open Access

The Sports-Related Injuries and Illnesses in Paralympic Sport Study (SRIIPSS): a study protocol for a prospective longitudinal study



Kristina Fagher^{1*} , Jenny Jacobsson², Toomas Timpka², Örjan Dahlström^{2,3} and Jan Lexell^{1,4,5}



Paralympic.org

Obrigado!

Photos ©: Getty Images