

# Falls are common in wheelchair users with spinal cord injury

- a prospective multicenter study of risk indicators



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# Background

## Falls and injuries

- Falls seem to be common: 30–55% per 6-12 months
- Fall-related injuries / fractures: 10-14% per year

## Risk factors

- Male
- Younger age
- Shorter time since SCI
- Higher physical function
- Previous falls
- Binge drinking

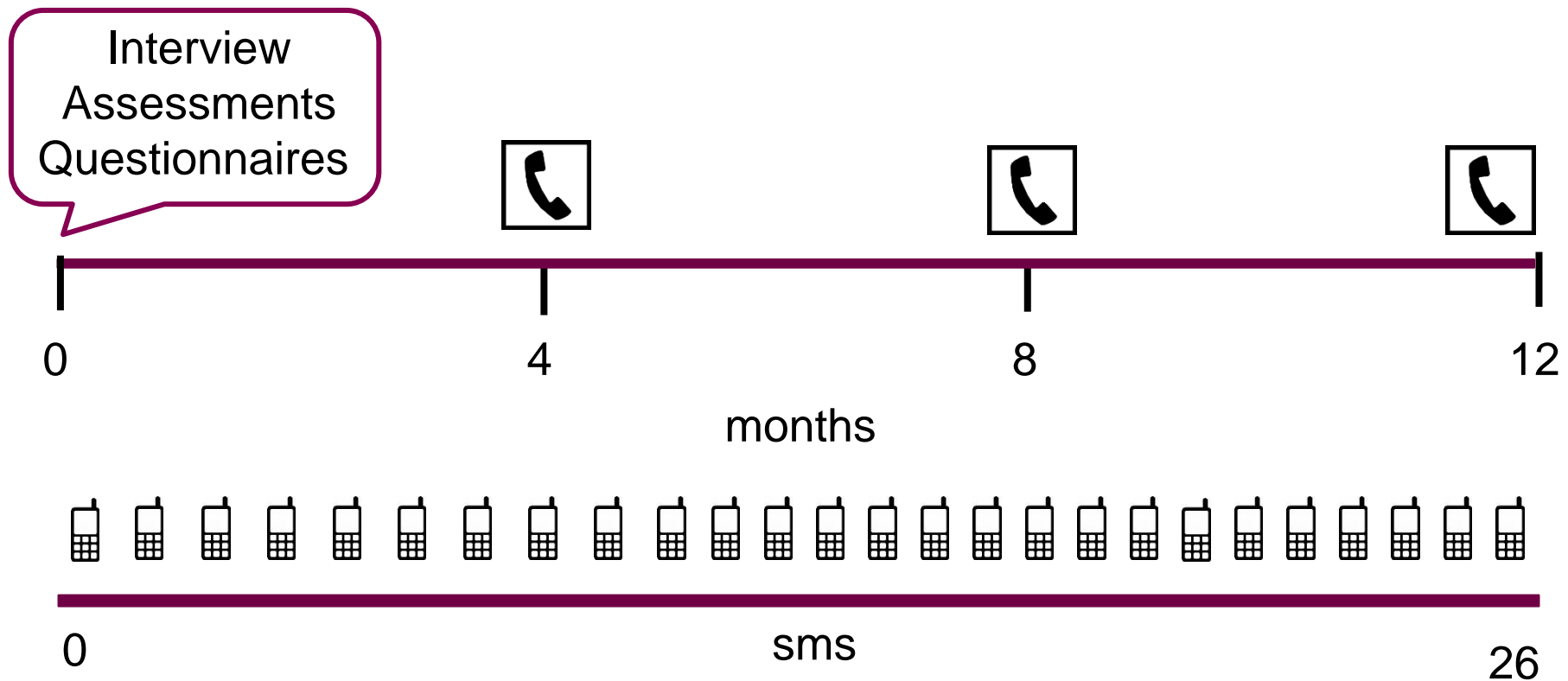
Amatachaya 2011, Krause 2004, Kirby 1994, Matsuda 2015, Nelson 2010, Saunders 2015, Wannapakhe 2014

## Aim

To identify incidence of and risk indicators for recurrent ( $\geq 3$ /year) falls and fall-related injuries in wheelchair users with traumatic SCI

# Method

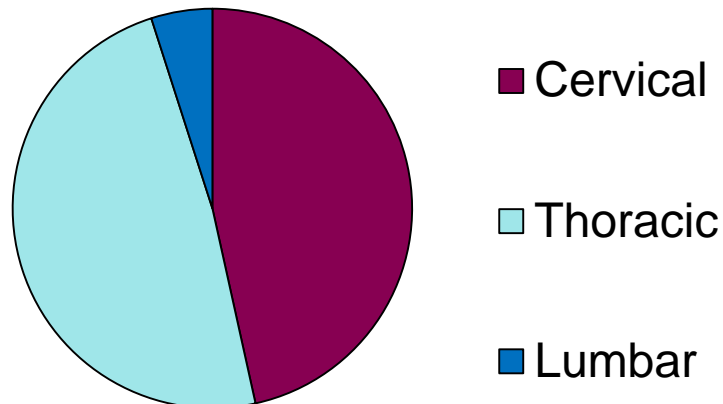
- 1 year prospective multicenter cohort study
- 151 wheelchair users with traumatic SCI  $\geq 1$  year post injury



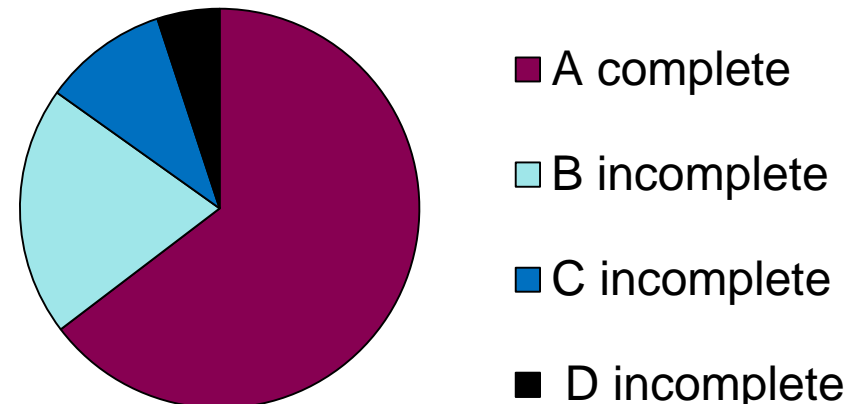
# Demographics

- Gender: 83% men
- Age: mean 47 years (SD 14)
- Years post injury: median 16 years (IQR 20)

## Level of injury

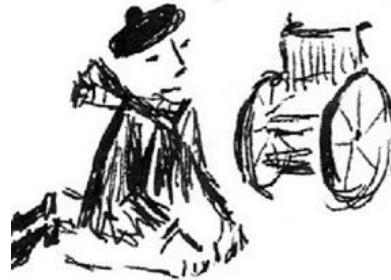


## Extent of injury (AIS\*)



\*American Spinal Cord Injury Association Impairment Scale

## Falls and injuries



- 2/3 fell
- 1/2 of those who fell were injured
- 3/10 injuries were moderate or serious

## Predictors

- Recurrent falls previous year could predict recurrent falls (OR = 10.27, 95% CI 4.27-24.74)
- Higher quality of life reduced OR of injurious falls (OR = 0.86, 95% CI 0.74-1.00)

# Clinical implications

- Those who report recurrent falls, continue to fall
- Ask about falls
- Pay attention if:
  - ill
  - changes in level of spasticity
  - new wheelchair / technical a
- Prevent unnecessary falls



# THANK YOU!

**Like to know more?**

Falls in wheelchair users with spinal cord injury  
- incidence, risks and concerns  
Karolinska Institutet, Sweden, 2017

<https://openarchive.ki.se/xmlui/handle/10616/45417>  
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