Spinal Cord Injury (SCI) cluster

Department of Rehabilitation Medicine
Faculty of Medicine
Chiang Mai University
Spinal cord injury (SCI)

Background

• SCI affects many aspects of life, range from general physical function to coping skills and social reintegration.

• For examples: problems with bladder and bowel care, sexual dysfunction, and complications
Spinal cord injury (SCI)

Background

• From our previous study, incidence of SCI in Chiang Mai was about 23 per million population and seemed increasing due to traumatic and non-traumatic causes.
Spinal cord injury (SCI)

Propose

• Our aim is to improve the QoL of people with SCI by increasing functional capacity and preventing unwanted secondary conditions such as pressure ulcers and urinary tract infection.
Our focus

• **SCI database**
  • Registry and cause of injury survey: a pilot study of ASCON
  • International SCI survey

• **Mobility & assistive technology**
  • Robots for leg and arm
  • Wheelchairs

• **Rehab Management Outcomes**
  • Neurogenic bladder management
  • Neurogenic bowel management
  • Cardiovascular risk management
  • Tetraplegic hand and shoulder
  • Pressure ulcers
Members

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On going research projects

• National SCI registry
  – Project investigator: Assoc. Prof. Apichana Kovindha
  – Site principal investigators:
    • CMU: Asst. Prof. Siam Tongprasert
    • SNRC: Dr. Napasakorn Komaratat
    • Ratchaburee: Dr. Rungarun Mahachai
    • Siriraj: Dr. Chayaporn Chotiyarnwong
On going research projects

• Distal nerve transfer in tetraplegia
  – Principal investigator: Assoc. Prof. Kanit Sananpanich, Department of Orthopaedic Surgery, CMU
  – Co-investigators
    • Asst. Prof. Jirachart Kraisarin, Department of Orthopaedic Surgery, CMU
    • Assoc. Prof. Apichana Kovindha
    • Asst. Prof. Siam Tongprasert
    • Asst. Prof. Pratchayapon Kammuang-lue
On going research projects

• Upper limb robot (WEFRE) in tetraplegic patients
  – Principal Investigator: Dr. Winai Chonnaparamutt, NECTEC
  – Site investigators:
    • Assoc. Prof. Apichana Kovindha
    • Asst. Prof. Siam Tongprasert
    • Asst. Prof. Pratchayapong Kammuang-lue
On going research projects

• Reliability of the International SCI Upper Extremity Basic Data
  – Principal investigator: Dr. Ajaree Namchandee
  – Co-investigators
    • Dr. Kasan Sotthipoka
    • Asst. Prof. Pratchayapon Kammuang-lue
    • Asst. Prof. Siam Tongprasert
On going research projects

• Construct validity of the International SCI Upper Extremity Basic Data
  – Principal investigator: Dr. Kasan Sotthipoka
  – Co-investigators
    • Asst. Prof. Pratchayapon Kammuang-lue
    • Asst. Prof. Siam Tongprasert
Future research projects

• International SCI community survey
  – National Collaborator:
    Assoc. Prof. Apichana Kovindha
  – Site principal investigators:
    • CMU: Asst. Prof. Siam Tongprasert
    • SNRC: Dr. Napasakorn Komaratat
    • Ratchaburee: Dr. Rungarun Mahachai
    • Siriraj: Dr. Chayaporn Chotiyarnwong
Future research projects

• Validity of the Thai version of the International SCI QoL Basic Data set
  – Principal investigator: Asst. Prof. Siam Tongprasert
  – Co-investigators
    • Asst. Prof. Montana Buntragulpoontawee
    • Dr. Jeerapan Rapipong
    • Prof. Tinakorn Wongpakaran, Department of Psychiatry, CMU
Future research projects

• Reliability of the International SCI Urodynamic Basic Data set
  – Principal investigator: Dr. Kittamet Dejkriengkraikul
  – Co-investigators
    • Dr. Tuankasfee Hama
    • Dr. Sintip Pattanakuha
    • Asst. Prof. Siam Tongprasert
Future research projects

• Abdominal FES to reduce respiratory complications in SCI
  – National Collaborator:
    Assoc. Prof. Apichana Kovindha
  – Site principal investigators:
    Asst. Prof. Siam Tongprasert
International SCI publications


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