Causes of SCI in Tanzania

- Falls
- RTA
- Carrying Loads

Background
In low-income countries, healthcare provision for those with spinal cord injuries (SCI) remains at a pre-Guttman level and people continue to die from preventable secondary complications e.g. pressure ulcers. The cost of having a SCI rests ultimately with the individual. They not only have to bear the burden of their disability and associated costs of equipment, but also the potential loss of role and livelihood. Following attendance at a Urology conference at Kilimanjaro Medical Centre (KCMC). It was identified that spinal patients were located on an overcrowded orthopaedic ward, although a dedicated unit had been funded and built by a Dutch charitable organisation. This unit, although on site, remained unoccupied.

KCMC subsequently invited the National Spinal Injuries Centre (NSIC) to form a collaboration with the following results:
- A Spinal Working Group was formed at KCMC
- The Tanzania Working Group (TWG) was established at Stoke Mandeville Hospital
- An assessment of need was carried out in October 2012 by the TWG at KCMC

Common causes of traumatic SCI in Tanzania

- Carrying loads on head: bananas, wood, bricks
- Fall from heights: mango and avocado trees, scaffolding, collecting firewood
- Road traffic accidents: cars, small buses, bicycles and multiple riders on motorbikes

Aims of Collaboration
- Provide training in all aspects of SCI management
- Promote and demonstrate the importance of a multidisciplinary team
- Identify a core group of KCMC staff interested in SCI
- Establish links within KCMC hospital itself
- Fund peer support workers via Motivation Africa
- Establish links with local external agencies

Networking
- Links with the Tanzania Training Centre for Orthopaedic Technologists (TATCOT) have been forged regarding fabrication and provision of wheelchairs, prone trolleys and standing frames
- Meeting with KCMC Director, medical director and hospital board to explore rehabilitation funding options and highlight the short and long term needs of the patients
- Re-established links between Kilimanjaro Association of Spinal Injuries (KASI) and KCMC through the peer support workers

Training Provided
The NSIC team have visited on 3 separate occasions between 2013 and 2015. They provided practical ward based teaching and formal lectures to the multidisciplinary team on all aspects of spinal cord injury including the following:
- Nursing: Skin and pressure sore management, bladder and bowel management, sexuality and fertility
- Occupational Therapy: 24 hour positioning, dressing and activities of daily living skills, upper limb splinting, income generation, home adaptations
- Physiotherapy: Respiratory, acute joint care and spasticity management, ASIA scoring, bed mobility, transfers, standing and caliper training
- Medical: Urological procedures, bladder scanning

Although, each discipline has individual skills, knowledge and training overlapped considerably within this environment. In January 2015, KCMC moved traumatic spinal cord injured patients into the new unit. On the most recent visit, all training was carried out within the new centre.

Challenges
To establish a functional SCI unit the following challenges need to be addressed:
- Provision of funding for rehabilitation in East Africa
- The prevention and management of pressure ulcers. A marked reduction in pressure ulcers was noted by the third training visit
- Provision of funding for wheelchairs, cushions and equipment
- Long term provision of urinary products and medication
- Management of the non traumatic SCI population in Tanzania
- Cultural attitudes toward disability and rehabilitation
- Accessibility within the community

Achievements
- A dedicated unit
- Recruitment of nursing staff and other MDT members specifically for the unit in KCMC
- Nursing staff attitudes towards individuals with SCI and the importance of rehabilitation have improved
- KCMC staff rehabilitation skills have improved
- Therapy staff at KCMC have developed a telephone link service for patients following discharge
- Regular peer input is taking place via weekly hospital visits managed by Motivation Africa
- KCMC staff supported to attend African SCI Network (AFSCIN) in Botswana in 2015

KCMC has all of the components needed to create a fully functioning SCI unit. With collaboration between the two units, KCMC have begun to establish themselves as the first SCI centre in East Africa.

References:
1. WHO & ISCCOS 2013 International perspectives in Spinal Cord Injury
2. Fink N et al 1985 Traumatic Paraplegia in Northern Tanzania Tropical Doctor January 123-6
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