Author Year Country Research Design PEDro Score Total Sample Size	Methods	Outcome
McKechnie et al. (2019) Australia Cohort N=3714	**Population:** 2007 (n=856): specialist=334, non-specialist=522; 2010 (n=808): specialist=312, non-specialist=496; 2013 (n=972): specialist=548, non-specialist=424; 2016 (n=1078): specialist=533, non-specialist=545 **Treatment:** Comparison of patients in specialized versus non-specialized rehabilitation units over 10-year period. **Outcome Measures:** Patient demographics, onset from injury, LOS, FIM **Chronicity:** Inpatient rehabilitation	1. Across time-groups, there were a greater proportion of those with SCI in non-specialist units. 2. Specialist units admit more males and the average age is lower. 3. Onset from injury and rehab LOS were longer for specialist units. 4. Total LOS for SCI in specialized units was 90 days, nearly double non-specialized units. 5. Mean FIM admission was lower in specialized unit versus non-specialized. 6. Patients admitted to specialized units had higher burden of care at admission and greater functional outcomes (absolute functional gain)
Cheng et al. (2017) Canada Cohort N=1599	**Population:** RHSCIR (n=1138): median age=47y (IQR: 33); Gender: male=79%, female=21%; Level of injury: Cervical=59.4%, other=40.6% No RHSCIR (n=403): median age=56 (IQR: 30); Gender: male=73.2%, female=26.8%; Level of injury: Cervical=64.9%, other=35.1% Non-RHSCIR (n=58): median age=56 (IQR: 30); Gender: male=75.9%, female=24.1%; Level of injury: Cervical=78.8%, other=21.2% **Treatment:** Patient trajectory was analyzed after being discharged from a specialized acute SCI facility. 3 groups were formed: RHSCIR group received rehab at a specialized facility, No RHSCIR did not receive rehab at a specialized facility, and non-RHSCIR did not attend a specialized facility. Authors then matched 159 RHSCIR and No RHSCIR participants and compared their discharge destination afterward. **Outcome Measures:** Predictors of returning home after attending a specialized (RHSCIR) rehab centre, difference in returning home between receiving rehabilitation at RHSCIR or no rehab. **Chronicity:** Post-acute	1. Receiving rehabilitation, age, and AIS D at admission, and acute LOS were significant predictors of being discharged home after attending RHSCIR ($p<0.05$) 2. In the matched sample of n=159, there was a significant difference in discharge destination (home or other) between RHSCIR rehab or no RHSCIR rehab ($p=0.0004$) with RHSCIR rehab having an increased likelihood to discharge home.
Smith (2002) UK Observational N=800	**Population:** Patients that received rehabilitation within the UK National Health Service. **Treatment:** Spinal cord injured patients who received rehabilitation from either a specialized spinal injury units (SIU) or non-specialized spinal injury units completed a postal self-report questionnaire.	1. 13.6% of patients did not use the SIU system. 2. SIU group had significantly lower: • Superficial pressure sores ($p=0.048$). • Need for assistance in grooming ($p=0.004$), eating ($p=0.001$), and drinking ($p<0.001$) in patients with complete tetraplegia.

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	Outcome Measures: Functional outcome, satisfaction, social activity.	3. Patients in SIU group were significantly more satisfied with the amount of assistance received (p=0.017). 4. SIU group was more likely to have: • A partner (p=0.012). • Paid employment (p=0.017). • Voluntary employment (p=0.025). • Satisfaction with sex in those with either tetraplegia (p=0.006) or paraplegia (p=0.05). 5. No significant difference was seen in general life satisfaction between the two groups.
Tator et al. (1995) Canada Case Control $N_{Initial}$=552; N_{Final}=552	**Population:** Traumatic SCI; 201/220 consecutive admissions to a newly established specialized interdisciplinary acute SCI unit versus 351 admissions to one of two general hospital trauma units; tetraplegia, paraplegia; incomplete, complete; Male/female ~ 4/1; Median age - 27yr (SCI Specialist unit), 32.0 years (general hospital). **Treatment:** Comparison of those treated in a SCI specialist spinal unit (1973-1981) versus a general hospital trauma unit (1947-1973). **Outcome Measures:** LOS, Mortality rate, Cord Injury Neurological Recovery Index. All collected at 6mo (complete) or 12mo (incomplete).	1. Subjects who were admitted to the specialized SCI unit had significantly shorter acute care LOS than those admitted to the general units (p<0.001). Within the specialized unit subsample, an increased delay from accident to admission resulted in longer LOS (p=0.032). 2. Subjects who were admitted to the specialized SCI unit had significantly reduced mortality than those admitted to the general units (p=0.022). This was especially evident in those with complete SCI. 3. Subjects who were admitted to the specialized SCI unit had significantly greater neurologic recovery (p<0.001).
Heinemann et al. (1989) USA Case Control $N_{Initial}$=338; N_{Final}=338	**Population:** 338 SCI admitted to Rehabilitation, paraplegia, tetraplegia, complete, incomplete. **Treatment**: N=185 initially treated in a specialized short-term acute care unit; Control: N=153 initially treated in general hospitals. **Outcome Measures:** MBI, MRSCICS Patient Functional Level Scheme, Rehabilitation LOS, Efficiency of Rehabilitation Gains (MBI / natural logarithm of LOS)	Those receiving specialized care made functional gains with significantly greater efficiency and were transferred to rehabilitation significantly faster (p<0.001). A significantly greater number of people were transferred from general centres with spine instability than from specialized SCI centres (p=0.02). There was no difference between specialized and general acute care with respect to functional status at rehabilitation admission or discharge nor on rehabilitation LOS.
Yarkony et al. (1985) USA Case Control $N_{Initial}$=181 N_{Final}=181	**Population:** Traumatic SCI admitted to a specialized rehabilitation unit; Males (n=149) and females (n=32); Avg age 28 years; Tetraplegia (54%), paraplegia (46%); incomplete (58%), complete (42%).	1. Those admitted from the specialized SCI unit had significantly improved joint motions (i.e., reduced contractures). More had normal range of motion (p<0.05) and fewer abnormalities.

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	Treatment: Comparison of those treated acutely in a specialized interdisciplinary spinal unit (n=90) versus a general hospital unit (n=91). **Outcome Measures:** Joint motion, time to rehabilitation admission, all collected at admission to rehabilitation.	2. Those admitted from the specialized SCI unit were admitted significantly earlier for rehabilitation as compared to those admitted from the general hospital unit ($p<0.01$). Those admitted earlier to rehabilitation had reduced numbers of contractures ($p<0.01$). 3. Those with tetraplegia had an increased incidence of contractures ($p<0.01$).
Donovan et al. (1984) USA Case Control $N_{Initial}$=1,672 N_{Final}=1,672	**Population:** Traumatic SCI, admitted to a specialized, integrated rehabilitation unit in Australia (n=66) versus those admitted to the United States Model Systems (n=1606); tetraplegia, paraplegia; incomplete, complete. **Treatment:** Those treated in an integrated, specialized interdisciplinary spinal unit (Australia) admitted <48 hours post-injury versus those admitted to the United States Model Systems at 1-15, 16-30, 31-45 or 46-60 days post-injury (reflecting progressively less specialized care). **Outcome Measures:** Incidence of 7 complications collected at 1-15, 16-30, 31-45 or 46-60 days post-injury.	1. Subjects who were cared for in the integrated, specialized unit (Australia) encountered the fewest complications (no statistical analysis was performed). 2. People sustained progressively more complications with longer periods of delayed admission (US Model Systems). Individuals admitted at these longer delays were cared for initially in general hospital units.