| Author Year Country Research Design Sample Size | Methods | Outcome |
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| Onigbinde et al. 2012<br>Nigeria<br>Observational<br>N=318 | **Population:** Mean age: 42.7 yr; Gender: males=204, females=114; Injury etiology: SCI=159, orthopaedic=123, head injury=36.<br>**Data Collection:** A structured questionnaire was used by hospital staff to gather information on socio-demographic and health data including age, diagnosis, date of admission, the date of skin breakdown (if any) and site of any ulcer. | 1. Mean age of participants was 42.7±15.1 yr.<br>2. 44 inpatients developed nosocomial pressure injuries within the three mo study period.<br>3. The mean age of those who developed pressure injuries was 41.18±13.98 yr. The incidence rate was 13.84%.<br>4. Among those who developed pressure injuries, 22 (50%) had spinal cord injuries. Therefore, of 48 people with a SCI, 45.8% developed a pressure injury.<br>5. Of the 44 inpatients with pressure injuries, 32 (72.7%) were men and 12 (27.3%) women.<br>6. The period between time of admission and first appearance of pressure injury ranged from 3-90 days, with a median of 25 days.<br>7. At onset, only four (9.1%) ulcers were classified as stage 2 ulcers, after 90 days, 23 (52.3%) ulcers were at stage 2.<br>8. Of the 44 patients who developed pressure injuries, 38 developed them at the sacrum, 20 on the heels and two at the occiput. |
| Taghipoor et al. 2009<br>Iran<br>Observational<br>N=5995 | **Population:** Median age ranges: 21-30 and 30-40 yr; Gender: males=71.8%, females=28.2%; Injury etiology: traumatic=63.2%, non-traumatic=35.2%.<br>**Data Collection:** Patients who received financial, medico-social, and rehabilitative support provided by the State Welfare Organization of Iran. | 1. Overall incidence of pressure injury was 39.2% (71.8% traumatic, 28.2% nontraumatic)<br>2. Age was a factor associated with pressure injury in patients with nontraumatic SCI, but not level of injury, education, and occupational status.<br>3. Only occupation and education were factors associated with pressure injury in traumatic SCI ($p<0.01$), but not age. |
| Nogueria et al. 2006<br>Brazil<br>Observational<br>N=47 | **Population:** Age ranges: <20 yr=8, 21-30=17, 31-40=5, 41-50 yr=7, 51-60=3, >60=3; Gender: males=45, females=2; Level of injury: C=19, T=21, L=7.<br>**Data Collection:** Database on patients who received care at Ribeirão Preto Medical School Hospital das Clínicas. | 1. Overall incidence of pressure injury was 42.5% (mean=2.3 pressure injury per patient).<br>2. Incidence by number pressure injury: 0=27 (57.4%), 1=7 (15.0%), 2=5 (10.6%), 3=4 (8.5%), 4=3 (6.4%), 5=1 (2.1%).<br>3. Incidence of pressure injury by grade: Grade 1=10.9%, Grade 2=17.4%, Grade 3=6.5%, Grade 4=13.0%, Unknown=52.2%.<br>4. Most common regions of pressure injury: sacrum=36.9%, heel=17.4%, gluteal=10.8%), ischium=10.8%), coccyx=6.5%. |
| Raghaven et al. 2003<br>United Kingdom<br>Observational<br>N=427 | **Population:** Mean age: 47±14.7 yr; Gender: males=76.0%, females=24.0%; Mean time since SCI: 13.0±10.6 yr; Etiology of injury: traumatic SCI=425, spina bifida=2.<br>**Data Collection:** Postal survey assessing pressure injury among individuals with SCI in the community who were being followed by the medical centre. | 1. Point prevalence was 23%.<br>2. *Incidence of Grade 1=12.4%, Grade 2=10.3%, and Grade 1 and 2=0.5%.<br>3. Most common pressure injury sites: heel=10.8%, sacrum=14%, and gluteal=23.7%.<br>4. 55% had a Grade 2+ pressure injury at any point since their SCI. |

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| | | 5. Current smoking and regular inspection of skin was associated with the occurrence of pressure injury.<br>*N=45 patients not included in these results. |
| Walters et al. 2002<br>USA<br>Observational<br>N=99 | **Population:** Most patients were >50 yr and had their SCI >10 yr ago.<br>**Data Collection:** A database was created to track patients' self-reported long-term SCI complications following rehabilitation. | 1. Overall prevalence was 38%.<br>2. Pressure injury occurred primarily in sacral, ischial, and trochanteric areas (71%). |
| Klotz et al. 2002<br>France<br>Observational<br>N=1668 | **Population:** Mean age: 43.6 yr, Gender: males=80%, females=20%; Level of injury: C1-C2=10.5%, C3=13.1%, C4=15.4%, C5=13.9%, C6=13.4%, C7-C8=10.4%; Mean time since injury: 12.9 yr<br>**Data Collection:** Tetrafigap survey – a self-reported questionnaire given to individuals in rehabilitation. | 1. 19.7% of re-hospitalization cases were due to pressure injuries. |
| Chen et al. 1999<br>USA<br>Observational<br>N=1649 | **Population:** Mean age: 36.5 yr, Gender: males=79%, females=21%; Level of injury: incomplete tetraplegia (31%), complete paraplegia (29%), complete tetraplegia (20%), and incomplete paraplegia (19%); Time since SCI: 3 yr=702, 2 yr=716, 1 yr=231.<br>**Data Collection:** Information was collected from the National SCI Statistical Center (NSCISC) database of patients admitted 1996-1998. | 1. Incidence of pressure injury by grade: Grade 1=27.3%, Grade 2=54.5%, Grade 3=11.9%, Grade 4=3.2%, Unknown=2.8%.<br>2. Participants in rehabilitation; 63.9 had one ulcer, 21.2% had two ulcers, 10.5% had three ulcers, and 4.3% had four or more ulcers.<br>3. Pressure injuries were found most in the sacrum (39%), heels (13%) and ischium (8%).<br>4. Higher percentage of pressure injuries for participants with complete injuries; 23.1% of complete paraplegia, and 39.5% of complete tetraplegia had at least one ulcer. |
| Mckinely et al. 1999<br>USA<br>Observational<br>N=20354 | **Population:** Time since injury: 1 yr=6,776, 2 yr=5,744, 5 yr=4,100, 10 yr=2,399, 15 yr=1,285, 20 yr=500.<br>**Data Collection:** Information was collected from the National SCI Statistical Center (NSCISC) database of all patients admitted from 1973 and had a follow-up phone evaluation in 1986-1998. | *Prevalence of pressure injury by time since SCI:*<br>1. 1 yr (n=4,978), 2 yr (n=3,421), 5 yr (n=2,079), 10 yr (n=1,073), 15 yr (n=450), 20 yr (n=102).<br>*Prevalence of pressure injury by time since SCI and level of injury:*<br>2. Incomplete Paraplegia - 1 yr=5.6%, 2 yr=8.3%, 5 yr=10.9%, 10 yr=14.5%, 15 yr=18.4%, 20 yr=12.5%.<br>3. Complete Paraplegia - 1 yr=22.3%, 2 yr=24.5%, 5 yr=25.5%, 10 yr=28.2%, 15 yr=26.7%, 20 yr=29.8%.<br>4. Incomplete Tetraplegia - 1 yr=9.3%, 2 yr=10.2%, 5 yr=11.5%, 10 yr=18.4%, 15 yr=20.8%, 20 yr=13.3%.<br>5. Complete Tetraplegia - 1 yr=25.2%, 2 yr=26.4%, 5 yr=27.2%, 10 yr=25.1%, 15 yr=27.6), 20 yr=40.6%.<br>6. Individuals who sustained SCI from acts of violence were the most common etiology for pressure injuries. |

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| | | 7. Individuals with paraplegia had the highest prevalence of grade 3 and 4 ulcers (9.1%) |
| Anson & Shepherd 1996<br>USA<br>Observational<br>N=348 | **Population:** Mean age: 37 yr; Gender: males=81.9%, females=18.1%; Level of injury: C0-C4=67, C5-C8=123; T1-T11=100, T12-S5=50; Time since SCI: 1-2 yr=90, 3-5 yr=88, 6-10 yr=10, 11-15 yr=41, >15 yr=27.<br>**Data Collection:** Information was collected when patients returned to outpatient clinics for routine follow-up examinations. | *Incidence of all grades of pressure injury by time since SCI:*<br>Grade 1 or 2=83.3%, Grade 3 or 4=16.6%.<br><br>*Incidence of Grade 1 or 2 pressure injury by time since SCI:*<br>1. 1-2 yr=92.3%; 3-5 yr=82.4%, 6-10 yr=96.5%, 11-15 yr=94%, >15 yr=68.4%.<br>*Incidence of Grade 3 or 4 pressure injury by time since SCI:*<br>2. 1-2 yr=7.7%, 3-5 yr=17.6%, 6-10 yr=13.5%,11-15 yr=16%, >15 yr=31.6%.<br>3. The most common locations were foot/heel (27%), sacrum (18.3%), and ischium (18.2%).<br>4. The most common identified etiology for pressure injuries were lack of weight shifts, postural problems, hot water burns, and improper turning in bed. |