

Author Year; Country Score Research Design Total Sample Size	Methods	Outcome
<p>House & Stiens 1997; USA RCT Level 1 (PEDro = 7) N=15</p>	<p>Objective: To compare the effectiveness of hydrogenated vegetable oil-based bisacodyl (HVB) suppositories, polyethylene glycol-based bisacodyl (PGB) suppositories, and polyethylene glycol-based, glycerine, docusate sodium mini-enemas (TVC) in subjects with upper motor neuron spinal cord lesions.</p> <p>Population: 9 participants with cervical injuries, 6 with thoracic injuries (11 complete, 4 incomplete); Age range: 26-61; Duration of injury: 3 months to 45 yrs</p> <p>Treatment: At each regularly scheduled bowel care session, insertion of either a 10 mg hydrogenated vegetable-oil base (HVB) or 10 mg polyethylene glycol base (PGB) suppository. Additionally, 10 participants received 3 TVC (polyethylene glycol-based, glycerine, docusate sodium mini-enemas).</p> <p>Outcome Measures: time to flatus, flatus to stool flow, defecation period, time to transfer cystometrogram, intracolonic pressure, colonic motor and myoelectrical activity</p>	<ol style="list-style-type: none"> 1. Mean time to flatus (min): PGB (15) significantly less time than HVB (32) 2. Mean time from flatus to stool flow (min): No significant differences. HVB=6.7, PGB=5.5, TVC=3.9. 3. Defecation Period (mean in min): PGB (20) significantly less time than HVB (36). TVC=17. 4. Total time for bowel program (mean in min): PGB suppositories (43) significantly decreased bowel care time compared to HVB (74.5). TVC=37.
<p>Frisbie 1997 USA</p>	<p>Objective: To test its effectiveness for bowel care in myopathy patients, a bisacodyl suppository based in</p>	<ol style="list-style-type: none"> 1. All patients experienced a shortening of bowel care time with PGB. Average time for

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<p>Prospective controlled trial Level 2 N=19</p>	<p>polyethylene glycol (PEGBS) was compared with a conventional bisacodyl suppository based in hydrogenated vegetable oil (HVOBS).</p> <p>Population: Level of injury: T1-7 (15 cervical, 4 thoracic); Age: mean (range) 64 (41-81)yrs; Duration of injury: mean (range) 19 (3-51)yrs.</p> <p>Treatment: A PGB vs HVB bisacodyl suppository</p> <p>Outcome Measures: Average time for complete bowel evacuation</p>	<p>bowel evacuation was 2.4 hours (range 1.0-4.5 hours) with HVB and 1.1 hours (range 0.3 to 1.8 hours) with PGB.</p>
<p>Dunn & Galka 1994 USA Pre-post Level 4 N=14</p>	<p>Objective: To compare the Theravac SB "mini-enema" with bisacodyl suppositories in the bowel management programs of patients with spinal cord injury (SCI).</p> <p>Population: Level of injury: C5-L1, (5 tetraplegics, 9 paraplegics); Age: range 27-67yrs; Duration of injury: range 2-38yrs</p> <p>Treatment: Phase 1: bisacodyl suppositories for five bowel programs for baseline data. Phase 2: docusate sodium mini enema (Theravac SB) for the next five bowel programs. Phase 3: bisacodyl for five more bowel programs</p> <p>Outcome Measures: Self-reported diary including time of insertion of the rectal medication; time of first</p>	<ol style="list-style-type: none"> 1. 10 participants complete all treatment phases. 2. Of these 10 participants, the mean evacuation time was significantly reduced with Theravac SB (phase 2) compared to the mean times with both the bisacodyl interventions (phase 1 and 3) 3. No significant difference in evacuation time between the first (phase 1) and second (phase 3) bisacodyl interventions.

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	evacuation; time required to complete the first evacuation; other interventions used; bowel problems between bowel programs	
<p>Round et al. 2021 Canada Case series Level 4 N=161</p>	<p>Objective: To explore the association between bowel dysfunction and use of laxatives and opioids in an acute rehabilitation setting following SCI</p> <p>Population: N=161 Age: 48.1 ± 19.1 y Etiology: 64% traumatic Time since injury: 52.8 ± 56.8 days Female: 30.4%</p> <p>On admission: Cervical 74 (45.9%) AIS A + B 25 (15.5%) AIS C + D 49 (30.4%) Thoracic 39 (24.2%) AIS A + B 21 (13.0%) AIS C + D 18 (11.2%) Lumbosacral 48 (29.8%) AIS A + B 18 (11.2%) AIS C + D 30 (18.6%)</p> <p>At discharge: Cervical 69 (42.8%) AIS A + B 20 (12.4%) AIS C + D 49 (30.4%) Thoracic 34 (21.1%) AIS A + B 13 (8.1%) AIS C + D 21 (13.0%) Lumbosacral 58 (36.1%)</p>	<p>Frequency of bowel movement with laxatives</p> <ol style="list-style-type: none"> 1. Frequency of bowel movement (BM) was negatively correlated with number of laxatives used at admission ($r=-0.28$, $p<0.001$) and discharge ($r=-0.16$, $p=0.035$). 2. Frequency of BM was negatively correlated with the number of laxatives used at admission only for the UMM ($r=-0.218$, $p=0.022$) and LMN groups ($r=-0.384$, $p=0.006$). <p>Frequency of fecal incontinence (FI)</p> <ol style="list-style-type: none"> 1. No correlation at admission between laxative use and FI, but a positive correlation at discharge ($r=0.194$, $p=0.014$). <p>Opioids</p> <ol style="list-style-type: none"> 1. Overall, no correlation between average dose of opioids and frequency of BM at admission. Although, a negative correlation between average dose of

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	<p>AIS A + B 12 (7.5%) AIS C + D 45 (28.0%) AIS E 1 (0.6%)</p> <p>Treatment: N/A</p> <p>Outcome Measures: Frequency of bowel movements with laxatives, frequency of fecal incontinence episodes, opioid and laxative usage</p>	<p>opioids and BM frequency at discharge ($r=-0.20$, $p=0.009$) confirms the constipating effect of opioids.</p> <ol style="list-style-type: none"> 2. For the UMN group there was a positive correlation between BM frequency and average dose of opioids at admission ($r=0.350$, $p=0.006$), but not for the LMN group. 3. No correlation at admission or discharge between average dose of opioids and FI frequency.