

# Case-Based Learning Module: SPINAL CORD INJURY PREVENTIVE HEALTH, SECONDARY HEALTH CONDITIONS & PRIMARY CARE FLOWSHEET

## INTRODUCTION

---

There is evidence to suggest that persons with SCI receive suboptimal preventative care and have many unmet health care needs.<sup>47-49</sup> The challenges associated with accessing optimal primary care for those with SCI are well documented including environmental barriers (inaccessible medical buildings, inadequate space, lack of specialized medical equipment),<sup>50</sup> and limited academic preparation and lack of knowledge of SCI healthcare issues by primary care providers.<sup>50-54</sup> Persons with SCI often have secondary complications that may be not only be detrimental to their health and well-being but also put strain on the healthcare system, (pressure ulcers,<sup>55</sup> autonomic dysflexia,<sup>56</sup> respiratory illness,<sup>57</sup> spasticity,<sup>58</sup> neurogenic bowel,<sup>59</sup> and bladder dysfunction,<sup>60</sup>). Emerging evidence also demonstrates that persons with SCI are at increased risk of co-morbid health conditions such as obesity, diabetes and cardiovascular disease.<sup>57,61-63</sup> Secondary complications are known to be the primary reason for re-hospitalization after initial rehabilitation, particularly in the first year following SCI<sup>64</sup> with half of all Emergency Department visits being for potentially preventable (e.g., bladder issues, pneumonia) or low acuity (e.g., pain and complications related to genitourinary devices) conditions that could be managed in primary care.<sup>65</sup> Given the negative health outcomes and high health service utilization, there is a need to improve primary care for persons with SCI.

This section will address preventive health and prevention of common secondary conditions in individuals with spinal cord injury (SCI). Also included is a primary care flowsheet/checklist addressing secondary conditions.

## PREVENTATIVE HEALTH

### IMMUNIZATION<sup>46</sup>

#### Influenza:

- Annually

#### Pneumococcal:

- For those with lesions at T12 or above, one dose of Pneum-P-23 should be given
  - Some experts also suggest a dose of Pneu-C-13 vaccine, if given should be given before Pneu-P-23 followed by Pneu-P-23 vaccine 8 weeks later, if Pneu-P-23 given first then Pneu-C-13 should be given one year later
  - Adults at highest risk of IPD (eg. chronic kidney disease, chronic liver disease, splenic dysfunction, sickle cell disease, immunodeficiencies) should also receive 1 booster dose of Pneu-P-23 vaccine

Pertussis:

- Administer one dose of Tdap vaccine if the person has not previously received it in adulthood (18 years of age and older)

## CARDIOMETABOLIC

In persons with SCI there is evidence indicating an earlier onset and/or prevalence of various chronic diseases (including CVD, type II diabetes, and osteoporosis). Adrenergic dysfunction (related to level of lesion), physical inactivity, and poor diet are thought to be key indicators for the elevated cardiovascular disease risk.<sup>66</sup> There are not guidelines to indicate testing should be different than the general population at this time.

Blood Pressure:

- Consider annually

Weight:

- Consider annually (limited by accessibility)

Diabetes (reference Canadian Diabetes Guidelines):

- Screen **every 3 years** in individuals  $\geq 40$  years of age
- Screen **every 3 years** in individuals at high risk according to the CANRISK calculator
- Screen **earlier and/or more frequently** in people at very high risk using the CANRISK calculator

Cholesterol (reference Canadian cardiovascular lipid guidelines 2016):

- Men  $\geq 40$ , women  $\geq 40$  (or post-menopausal) (any age in those high risk)

Exercise:

- Has been shown to decrease the progression of CVD and other co-morbidities in persons with SCI<sup>66</sup>
- Enquire about physical activity and consider directing individuals to [www.sciactioncanada.ca](http://www.sciactioncanada.ca)<sup>67</sup>

## BREAST CANCER SCREENING

---

**Screening for breast cancer in an individual with SCI should be the same as the general population and should follow the Canadian Task Force for Preventive Health guidelines<sup>23</sup> or local jurisdiction guidelines (i.e. provincial).** Issues women with SCI may encounter when obtaining a mammogram include inability of a technician to properly position mammography equipment that will allow them to remain in a wheelchair,<sup>25</sup> as well as inaccessible entry-ways, hallways and bathrooms.<sup>26</sup>

***Canadian Task Force for Preventive Health Breast Cancer Screening Guidelines<sup>23</sup>***

- For women aged 40–49 we recommend not routinely screening with mammography.

- (Weak recommendation; moderate quality evidence)
- For women aged 50–69 years we recommend routinely screening with mammography every 2 to 3 years.  
(Weak recommendation; moderate quality evidence)
- For women aged 70–74 we recommend routinely screening with mammography every 2 to 3 years.  
(Weak recommendation; low quality evidence)

## CERVICAL CANCER SCREENING

---

**Screening for cervical cancer in an individual with SCI should be the same as the general population and should follow the Canadian Task Force for Preventive Health guidelines<sup>24</sup> or local jurisdiction guidelines (i.e. provincial).** Issues that women with SCI may encounter during Papanicolaou test include difficulty positioning themselves on the table,<sup>25</sup> and the possibility of an episode of AD.<sup>27</sup> In order to decrease the possibility of AD, preventive strategies include emptying the bowel and bladder, coating the speculum with anesthetic jelly, or administering nifedipine thirty minutes prior to the procedure.<sup>28-30</sup> It should be noted that women with SCI were screened for cervical cancer at rate similar to those without SCI, with the exception of women with SCI that have lower income.<sup>31</sup>

### Canadian Task Force for Preventive Health Cervical Cancer Screening Guidelines<sup>24</sup>

- For women aged < 20 we recommend not routinely screening for cervical cancer  
(Strong recommendation; high quality evidence)
- For women aged 20 to 24 we recommend not routinely screening for cervical cancer.  
(Weak recommendation; moderate quality evidence)
- For women aged 25 to 29 we recommend routine screening for cervical cancer every 3 years.  
(Weak recommendation; moderate quality evidence)
- For women aged 30 to 69 we recommend routine screening for cervical cancer every 3 years.  
(Strong recommendation; high quality evidence)
- For women aged ≥ 70 who have been adequately screened (i.e., 3 successive negative Paptests in the last 10 years), we recommend that routine screening may cease. For women aged 70 or over who have not been adequately screened we recommend continued screening until 3 negative test results have been obtained.  
(Weak recommendation; low quality evidence)

## COLORECTAL CANCER SCREENING

---

**Colorectal cancer screening in an individual with SCI should be the same as the general population<sup>32,33</sup>, and should follow the Canadian Task Force for Preventive Health guidelines<sup>44</sup> or local jurisdiction guidelines (i.e. provincial).** It is important for primary care providers to review bowel management with patients with SCI at least annually.

- FOBT can be used but false positives may occur if complications such as hemorrhoids are

present. A high rectal specimen may prevent false positives.<sup>34</sup>

- Colonoscopy may be considered, however, planning is necessary to ensure the facility is accessible and that appropriate preparation can be done. This can be facilitated by a detailed referral to the specialist performing the colonoscopy.
  - An extended colonic preparation period, and cross-disciplinary care may be required<sup>35</sup>
  - Standard bowel preparation should occur over an extended period of time<sup>35</sup>
  - Patients who have an injury at or above T6 are at risk of peri-procedural autonomic dysreflexia<sup>35</sup>

#### **Canadian Task Force for Preventive Health Colorectal Cancer Screening Guidelines<sup>44</sup>**

- We recommend screening adults aged 60 to 74 for CRC with FOBT (either gFOBT or FIT) every two years OR flexible sigmoidoscopy every 10 years.  
(Strong recommendation; moderate quality evidence)
- We recommend screening adults aged 50 to 59 for CRC with FOBT (either gFOBT or FIT) every two years OR flexible sigmoidoscopy every 10 years.  
(Weak recommendation; moderate quality evidence)
- We recommend not screening adults aged 75 years and over for CRC.  
(Weak recommendation; low quality evidence)
- We recommend not using colonoscopy as a screening test for CRC.  
(Weak recommendation; low quality evidence)

### **PROSTATE CANCER SCREENING**

---

Due to the potential harms of screening, including over-diagnosis and over-treatment, many jurisdictions do not support an organized, population-based screening program for prostate cancer.<sup>68</sup>

Current screening guidelines for prostate cancer indicate that physicians could discuss the pros and cons of Prostate Specific Antigen (PSA) with patients of average-risk aged 55-69 years.<sup>36</sup> “The decision to undergo PSA testing should be shared between the patient and his physician based on information balancing the test’s advantages and disadvantages”.<sup>37</sup> Potential negative outcomes include the possibility of false-positive results, risks of biopsy and the potential for prostate cancer diagnosis leading to unnecessary treatments.<sup>38</sup> Several studies found that the PSA between men with SCI and non-SCI aged matched controls did not have any significant differences.<sup>39-42</sup> Digital rectal exam is not recommended.

#### **Canadian Task Force for Preventive Health Prostate Cancer Screening Guidelines<sup>45</sup>**

---

- For men aged less than 55 years, we recommend not screening for prostate cancer with the prostate-specific antigen test.  
(Strong recommendation; low quality evidence)
- For men aged 55–69 years, we recommend not screening for prostate cancer with the prostate-specific antigen test.  
(Weak recommendation; moderate quality evidence)
- For men 70 years of age and older, we recommend not screening for prostate cancer with the

prostate-specific antigen test.  
(Strong recommendation; low quality evidence)

## **SCI SECONDARY HEALTH CONDITIONS**

### **AUTONOMIC DYSREFLEXIA**

---

Autonomic dysreflexia (AD) is a serious, and potentially life threatening condition affecting those with lesions at T6 or above (has been reported with lesions as low as T10).<sup>1</sup> AD can be prevented by controlling noxious stimuli below the level of the lesion. Prevention measures include, but are not limited to; regularly scheduled bladder and bowel voiding, pressure techniques, and referral to a health professional for foot care to avoid ingrown nails or other issues. Adjustment of the patient's treatment plan may be necessary to avoid future episodes of AD.<sup>1</sup> Education may also be required to help the patient minimize risks and recognize symptoms in the future. See Common Causes of Autonomic Dysreflexia for other areas of prevention.

#### **Prevention of Autonomic Dysreflexia**

1. Education of patient and providers
2. Supplies at home: BP cuff; catheter supplies; short acting antihypertensives
3. Warnings in patient chart
4. AD wallet card

For more information, see **Autonomic Dysreflexia CBLM**

#### **Signs & Symptoms and Common Causes of Autonomic Dysreflexia:**<sup>2,3</sup>

SIGNS & SYMPTOMS:

COMMON CAUSES OF AD:

<i>SIGNS AND SYMPTOMS OF AUTONOMIC DYSREFLEXIA IN PATIENTS WITH SPINAL CORD INJURIES</i>		<i>COMMON CAUSES OF AUTONOMIC DYSREFLEXIA</i>	
<i>May involve all or some of the following:</i>		▪ <b>Bladder</b>	Distention Urinary tract infection Catheterization Catheter tube kinking Bladder or kidney stones
▪ BP elevated by 20-40 mmHg above resting BP*		▪ <b>Bowel</b>	Constipation Hemorrhoids Fissures Manual disimpaction
▪ Pounding headache		▪ <b>Skin</b>	Pressure areas Tight clothing/stockings/ straps Ingrown toenail Blisters
▪ Bradycardia (relative to patient's resting heart rate)		▪ <b>Other</b>	Sexual stimulation Scrotal compression Childbirth
▪ Flushing of the face			
▪ Profuse sweating above the level of the lesion			
▪ Skin pallor, cold and piloerection below the level of the lesion			
▪ Blurred vision			
▪ Shortness of breath			
▪ Anxiety			
▪ Nasocongestion			

**Figure 1:** Signs & Symptoms and Common Causes of AD

**BLADDER**

---

**Goals of Care**

1. Prevent retention (avoid distension)
2. Maintain continence
3. Avoid UTIs and overtreating asymptomatic bacteruria

There are no studies examining the optimal frequency of monitoring neurogenic bladder long-term in patients with SCI. Currently, the following can be considered based on **expert opinion and should be tailored to each individual** <sup>4-7</sup>:

- Review bladder management annually:
  - Method, continence, satisfaction, UTIs, hematuria
- Laboratory tests annually:
  - Creatinine/eGFR
  - electrolytes
- Urodynamics after injury and every one<sup>8</sup> to two years thereafter
- Ultrasound of kidneys/bladder annually
  - to assess for the presence of hydronephrosis, hydroureter, stones, bladder issues<sup>9,10</sup>
- Consider cystoscopy 10-15 years post-injury or if there are any changes in bladder routine, symptoms that cannot be controlled or a question of diagnosis for those with indwelling catheters due to the potential increased rate of bladder cancer (20 times increased risk)<sup>9,11</sup>
- If a patient has >3 UTIs/year or hematuria, a referral to a urologist should be made, and initiation of further investigations could be considered (e.g., KUB US)

## Bladder Cancer

Bladder cancer is the third leading cause of death in the spinal cord injured population,<sup>12</sup> and mortality from bladder cancer is 6.7 times higher.<sup>13</sup> Presenting symptoms of bladder cancer in individuals with SCI are similar to those without SCI, including hematuria, bladder mass and hydronephrosis, but may also present with unique symptoms such as bladder stones, recurrent UTI or new incontinence.<sup>14</sup> Despite the increased risk for bladder cancer and higher rate of mortality, **screening in the SCI population is not warranted** as urinalysis has been proven ineffective due to the high rates of microhematuria caused by chronic bacteriuria and catheterization,<sup>14</sup> and ineffectiveness of cystoscopy<sup>15,16</sup> & cytology.<sup>16</sup>

## BONE HEALTH

---

### Bone Mineral Density Screening

Patients with spinal cord injury (SCI) are at a greater risk of low bone mineral density (BMD) and subsequent fragility fractures compared to their non-SCI counterparts. This change is most prominent in bones below the level of injury, and is termed **sublesional osteoporosis (SLOP)**.<sup>21</sup> Although there are no clear guidelines regarding the frequency of screening BMD for patient with SCI, experts generally recommend completing the first BMD while in rehabilitation, and repeating every 1-2 years thereafter.

Sublesional Osteoporosis can be defined on the basis of DXA results:

<u>Age</u>	<u>Definition</u>
Men ≥ 60 yo, and post-menopausal women	Hip or knee region <b>T score</b> ≤ <b>-2.5</b>
Men < 59 yo or pre-menopausal women	Hip or knee region <b>Z score</b> ≤ <b>-2.0</b> plus ≥ <b>3 or more fracture risk factors</b>
Men or women age 16-90	<b>Prior fragility fracture</b> and <b>no other identifiable cause</b> for osteoporosis other than SCI

**Table 1:** DXA results for SLOP<sup>17</sup>

**Clinical Pearl:** Do NOT assume that a decrease in bone mass in a patient with SCI is due to SLOP; up to one third of SCI patients have an additional secondary cause of osteoporosis.<sup>43</sup>

**Clinical Pearl:** BMD of lumbar spine, hip and knee (distal femur, proximal tibia). The KNEE region BMD is the best predictor for knee fracture,<sup>8,9</sup> a common site for fragility fractures among patients with SCI,<sup>18-20</sup> however, BMD of the knee cannot be completed by most centres.

Clinicians should combine the SCI-specific risk factors with the scores from BMD to stratify risk of fractures. Patients who fall into moderate to high fracture risk categories will require therapy and risk factor Modifications.<sup>69</sup>

Yes	Risk Factors
<input type="checkbox"/>	Age at Injury < 16 years
<input type="checkbox"/>	Alcohol Intake > 5 servings/day
<input type="checkbox"/>	BMI < 19
<input type="checkbox"/>	Duration of SCI ≥ 10 years
<input type="checkbox"/>	Female
<input type="checkbox"/>	Motor Complete (AIS A-B)
<input type="checkbox"/>	Paraplegia
<input type="checkbox"/>	Prior fragility fracture
<input type="checkbox"/>	Family history of fracture
<input type="checkbox"/>	Anticonvulsant use
<input type="checkbox"/>	Heparin use
<input type="checkbox"/>	Opioid analgesia use

Table 2: Fracture Risk Factors<sup>21, 43</sup>

## Lifestyle

Patients should be counselled on lifestyle measures to help prevent decrease in bone mineral density, including<sup>18,21</sup>:

- Decreased alcohol intake
- Decreased caffeine intake (< 3 servings/day)
- Smoking cessation
- Review any changes in mobility, e.g., safety of transfers, need for mobility aids
- Activity based training (involving active assisted exercise, resistance training, cycle ergometry, gait training, and load bearing for at least 2-3 hours/day at least 2 days per week for 6 months)<sup>22</sup>
- Some individuals may be able to participate in weight bearing using wheelchair with sit-stand functionality or body weight supported treadmill

## Calcium and Vitamin D

The majority of patients with SCI should have a **calcium intake of 1000 mg/day**, primarily through diet. If this target is not met through diet alone, patients can supplement with calcium at a dose of no more than 400-500 mg at a time. There are two exceptions to this:

- In patients who have recurrent calcium oxalate or citrate renal stones or significant renal impairment, target calcium intake to 500 – 666 mg/day and a low oxalate diet should be initiated.
- In males and females who have not reached peak bone mass at time of SCI, pregnant or breast feeding women, and elderly patients with inadequate dietary intake, a target of 1500 mg/day of calcium should be recommended.<sup>21</sup>



In terms of vitamin D intake, all patients with SCI should follow the Osteoporosis Canada guidelines which recommend a **vitamin D intake of 800 – 2000 IU/day** for all adults year round.

## **RESPIRATORY HEALTH**

---

There are currently no widely accepted clinical practice guidelines for the long-term respiratory management of the patient with SCI. Individuals with higher level lesions are most at risk, but potentially any injury above L1 may affect respiratory health. Based on the best available information at this time, we recommend annual assessments of respiratory function for those considered at risk may include:

- **History:**
  - Respiratory complaints (SOB, secretion clearance, aspiration risk)
  - Respiratory infection history (frequency, ER/hospitalization, treatment)
  - Review of history of pulmonary embolism and pneumonia
- **Physical examination:**
  - Respiratory rate and pattern
  - Continuous pulse oximetry
  - Physical examination of the respiratory system, assessment of edema
- **Investigations:**
  - Annual spirometry or pulmonary functions tests
  - Polysomnography or nocturnal oximetry testing if indicated
- **Referrals:**
  - Referral to a respirologist for patients with a decrease in vital capacity (compared to their baseline) or an increased number of respiratory infections (two or more per year) and/or hospital admissions for respiratory problems
- **Counselling:**
  - Smoking cessation
  - Chest physiotherapy/exercises and daily respiratory muscle training in patients with injuries above T12
  - Physical activity is recommended to help improve respiratory function
- **Immunizations:**
  - Annual influenza vaccination
  - Pneumococcal vaccination<sup>46</sup>
    - See above

## REFERENCES

---

1. Consortium for Spinal Cord Medicine. Acute management of autonomic dysreflexia: individuals with spinal cord injury presenting to health-care facilities. (2002). *Journal of Spinal Cord Medicine* 25(1): 67-88.
2. Stephenson RO, & Klein MJ. (2016). Autonomic Dysreflexia in Spinal Cord Injury. Medscape. Obtained from <http://emedicine.medscape.com/article/322809-overview#a1> on December 14, 2016.
3. Milligan J, Lee J, McMillan C, & Klassen H. (2012). Recognizing a common serious condition in spinal cord injured patient. *Canadian Family Physician* 58(8): 831-835.
4. Hsieh J, McIntyre A, Iruthayarajah J, Loh E, Ethans K, Mehta S, et al. (2014). *Bladder Management Following Spinal Cord Injury*. In Eng JJ, Teasell RW, Miller WC, Wolfe DL, Townson AF, Hsieh JTC, et al. *Spinal Cord Injury Rehabilitation Evidence. Version 5.0: p 1-196*. <https://scireproject.com/evidence/rehabilitation-evidence/bladder-management/>
5. New South Wales Government. (2015). *Adult urethral catheterization for acute care settings*. Retrieved from [www1.health.nsw.gov.au/pds/ActivePDS/Documents/GL2015\\_016.pdf](http://www1.health.nsw.gov.au/pds/ActivePDS/Documents/GL2015_016.pdf)
6. Consortium for Spinal Cord Medicine. (2006). [Bladder management for adults with spinal cord injury: A clinical practice guideline for health-care providers](#). Washington, DC: Paralyzed Veterans of America.
7. Panicker JN, Fowler CJ, Kessler & TM. (2015). Lower urinary tract dysfunction in the neurological patient: clinical assessment and management. *The Lancet Neurology* 14: 720-732.
8. Lisenmeyer TA, & Lisenmeyer MA. (2013). Impact of annual urodynamic evaluations on guiding bladder management in individuals with spinal cord injuries. *Journal of Spinal Cord Medicine* 36(5): 420-426.
9. Craven C. (2017). *Expert Suggestion. Psychiatrist, Medical Lead, Brain and Spinal Cord Injury Rehabilitation Program*. Toronto Rehabilitation Institute.
10. Burki JR, Omar I, Shah PJ, & Hamid R. (2014). Long-term urological management in spinal cord injury units in the UK and Eire: a follow-up study. *Spinal cord* 52: 640-645.
11. Al Taweel W. & Seyam R. (2015). Neurogenic bladder in spinal cord injury patients. *Research and Reports in Urology* 7: 85-99.
12. Howlader N, Noone AM, Krapcho M, Miller D, Bishop K, Kosary CL, et al. (2017). SEER cancer statistics review 1975-2014. Bethesda, MD: National Cancer Institute. [https://seer.cancer.gov/csr/1975\\_2014/results\\_merged/sect\\_01\\_overview.pdf](https://seer.cancer.gov/csr/1975_2014/results_merged/sect_01_overview.pdf). Accessed August 25, 2017.
13. Nahm LS, Chen Y, Devivo MJ & Lloyd LK. (2015). Bladder cancer mortality after spinal cord injury over 4 decades. *Journal of Urology* 193: 1923-1928.
14. Elliott SP. (2015). Screening for bladder cancer in individuals with spinal cord injury. *Journal of Urology* 193: 1880-1881.
15. Yang CC & Clowers DE. (1999). Screening cystoscopy in chronically catheterized spinal cord injury. *Spinal Cord* 37: 204.
16. Higuchi TT, Fox JA & Husmann DA. (2011). Annual endoscopy and urine cytology for the surveillance of bladder tumours after enterocytostomy for congenital bladder anomalies. *Journal of Urology* 186: 1791.
17. The International Society For Clinical Densitometry (2013). Official Positions – Adult, from <http://www.iscd.org/official-positions/2013-iscd-official-positions-adult/>
18. Craven C, Lynch CL, Eng JJ. (2014). Bone Health Following Spinal Cord Injury. In Eng JJ, Teasell RW, Miller WC, Wolfe DL, Townson AF, Hsieh JTC, Connolly SJ, Noonan VK, Loh E, McIntyre A, editors. *Spinal Cord Injury Rehabilitation Evidence. Version 5.0. Vancouver: p 1- 37*.
19. Comarr A., Hutchinson RH, & Bors E. (1962). Extremity fractures of patients with spinal cord injuries. *American Journal of Surgery* 103: 732-739.
20. Ragnarsson KT, & Sell GH. (1981). Lower extremity fractures after spinal cord injury: a retrospective study. *Archives of Physical Medicine and Rehabilitation* 62: 418-423.
21. Craven, BC, Robertson, LA, McGillivray CF, & Adachi JD. (2009). Detection and treatment of sublesional osteoporosis among patients with spinal cord injury: Proposed paradigms. *Top spinal cord inj rehabil*, 14(4) 1-22.
22. Atorino TA, Harness ET, & Witzke LA. (2013). Effect of chronic activity-based therapy on bone mineral density and bone turnover in persons with spinal cord injury. *European Journal of Applied Physiology*, 113: 3027-3037.
23. Canadian Task Force on Preventive Health Care. (2011). Recommendations on screening for breast cancer in average-risk women aged 40-74 years. *Canadian Medical Association Journal* 183(17): 1991-2001.
24. Canadian Task Force on Preventive Health Care. (2013). Recommendations on screening for cervical cancer. *Canadian Medical Association Journal* 185(1): 35-45.
25. Schopp LH, Sanford TC, Hagglund KJ, Gay JW & Coatney MA. (2002). Removing service barriers for women with physical disabilities: promoting accessibility in the gynecologic care setting. *Journal of Midwifery & Women's Health*

- 47(2): 74-79.
26. Iezzoni LI, McCarthy EP, Davis RB & Siebens H. (2000). Mobility impairments and use of screening and preventive services. *American Journal of Public Health* 90(6): 955-961.
  27. Xu X, Mann JR, Hardin JW, Gustafson E, McDermott SW & Deroche CB. (2017). Adherence to US Preventive Services Task Force recommendations for breast and cervical cancer screening for women who have a spinal cord injury. *Journal of Spinal Cord Medicine* 40(1):76-84.
  28. Bates CK, Carroll N & Potter J. (2011). The challenging pelvic examination. *Journal of General Internal Medicine* 26(6): 651-657.
  29. Krassioukov A, Blackmer J, Teasell RW & Eng JJ. Autonomic dysreflexia following spinal cord injury. *Spinal Cord Injury Rehabilitation Evidence*. Available from: <http://www.scireproject.com/sites/default/files/>
  30. Eng JJ, Teasell RW, Miller WC, Wolfe DL, Townson AF, Hsieh JTC et al. (2007). Spinal cord injury rehabilitation evidence: methods of the SCIRE systematic review. *Top Spinal Cord Injury Rehabilitation* 13(1): 1-10.
  31. Guilcher SJ, Newman A & Jaglal SB. (2010). A comparison of cervical cancer screening rates among women with traumatic spinal cord injury and the general population. *Journal of Women's Health* 19(1): 57-63.
  32. Rabadi MH & Vincent AS. (2012). Colonoscopic lesions in veterans with spinal cord injury. *Journal of Rehabilitation, Research & Development* 49(2): 257-264.
  33. Palmer LB, Abbott DH, Hamilton N, Provenzale D & Fisher DA. (2010). Quality of colonoscopy reporting in community practice. *Gastrointestinal Endoscopy* 72(2): 321-327.
  34. Pryor J, Fisher M, Middleton J. Management of the Neurogenic Bowel for Adults with Spinal Cord Injuries. NSW Agency for Clinical Innovation; 2013.
  35. Hayman AV, Guihan M, Fisher MJ, Murphy D, Anaya BC, Parachuri R., et al. (2013). Colonoscopy is high yield in spinal cord injury. *Journal of Spinal Cord Medicine* 36(5): 436-442.
  36. Hayes JHH & Barry MJ. (2014). Screening for prostate cancer with the prostate-specific antigen test: a review of current evidence. *Journal of the American Medical Association* 311(11): 1143-1149.
  37. Heidenreich A, Bastian PJ, Bellmunt J, Bolla M, Joniau, van der Kwast T, et al. (2014). EAU guidelines on prostate cancer. Part 1: screening, diagnosis, and local treatment with curative intent – update 2013. *European Urology* 65: 124-137.
  38. Qaseem A, Barry MJ, Denberg TD, Owens DK & Shekelle P. (2013). Screening for prostate cancer: a guidance statement from the Clinical Guidelines Committee of the American College of Physicians. *Annals of Internal Medicine* 158(10): 761-769.
  39. Pramudji CK, Mutchnik SE, DeConcini D & Boone TB. (2002). Prostate cancer screening with prostate specific antigen in spinal cord injured men. *Journal of Urology* 167: 1303-1305.
  40. Pannek J, Berges RR, Cubick G, Meindl R & Senge T. (2003). Prostate size and psa serum levels in male patients with spinal cord injury. *Urology* 62: 845-848.
  41. Konety BR, Nguyen TT, Brenes G, Lewis N, Saul M, Nelson JB & Getzenberg RH. (2000). Evaluation of the effect of spinal cord injury on serum PSA levels. *Urology* 56(1): 82-86.
  42. Atalay AC, Karaman MI, Guney S, Güneş S, Dalkılıç A, Müslümanoğlu AY & Ergenekon E. (1998). Age-specific PSA reference ranges in a group of non-urologic patients. *International Urology & Nephrology* 30: 587-591.
  43. Craven B C, Hawker GA, Bugaresti & JM. (2008). Importance of screening of secondary causes of osteoporosis among patients with spinal cord injury. *Journal of Spinal Cord Medicine* 31(3): 335.
  44. Canadian Task Force on Preventive Health Care. (2016). Recommendations on screening for colorectal cancer in primary care. *Canadian Medical Association Journal* 188(5): 3340-348.
  45. Canadian Task Force on Preventive Health Care. (2014). Recommendations on screening for prostate cancer with the prostate-specific antigen test. *Canadian Medical Association Journal* 186(16): 1225-1234.
  46. Government of Canada. (2015). Canadian Immunization Guide. <https://www.canada.ca/en/public-health/services/canadian-immunization-guide.html>
  47. Iezzoni LI, McCarthy EP, Davis RB, Siebens H. Mobility impairments and use of screening and preventive services. *Am J Publ Health* 2000; 90:955-961
  48. McColl MA, Jarzynowska A, Shortt SED. Unmet health care needs of people with disabilities: population level evidence. *Disability and Society* 2010; 25:205-218.
  49. McColl MA, Aiken A, McColl A, Sakakibara B, Smith K. Primary care of people with spinal cord injury. Scoping review. *Can Fam Physician* 2012; 58:1207-1216.
  50. Kroll T, Jones GC, Kehn M, Neri MT. Barriers and strategies affecting the utilisation of primary preventive services for people with physical disabilities: A qualitative inquiry. *Health Soc Care Community* 2006; 14:284-293
  51. McMillan C, Lee J, Milligan J, Hillier LM, Bauman C. Physician perspectives on care of individuals with severe mobility impairments in primary care in Southwestern Ontario, Canada. *Health Soc Care*

- Community* 2015.
52. McColl MA, Forster D, Shortt SED, Hunter D, Dorland J, Godwin M *et al.* Physician experiences providing primary care to people with disabilities. *Healthcare Policy* 2008; 4:129-147
  53. O'Day B, Dautel P, Scheer J. Barriers to healthcare for people with mobility impairments. *Managed Care Quarterly* 2002; 10:41-51
  54. Middleton JW, Leong G, Mann L. Management of spinal cord injury in general practice - part 1. *Aust Fam Physician* 2008; 37:229-233.
  55. Caliri MH. Spinal cord injury and pressure ulcers. *Nurs Clin North Am* 2005; 40:337-347
  56. Bycroft J, Shergill IS, Choong EAL, Arya N, Shah RJR. Autonomic dysreflexia: a medical emergency. *Postgrad Med J* 2005; 81:232-235.
  57. Garshick E, Kelley A, Cohen SA, Garrison A, Tun CG, Gagnon D *et al.* A prospective assessment of mortality in chronic spinal cord injury. *Spinal Cord* 2005; 43:408-416.
  58. Rabchevsky AG, Kitzman PH. Latest approaches for the treatment of spasticity and autonomic dysreflexia in chronic spinal cord injury. *Neurotherapeutics* 2011; 8:274-282.
  59. Krassioukov A, Eng JJ, Claxton G, Sakakibara BM, Shum S. Neurogenic bowel management after spinal cord injury: a systematic review of the evidence. *Spinal Cord* 2010; 48:718-733.
  60. Jeong SJ, Cho SY, Oh SJ. Spinal cord/brain injury and the neurogenic bladder. *Urol Clin North Am* 2010; 37:537-546.
  61. Ackery A, Tator C, Krassioukov A. A global perspective on spinal cord injury epidemiology. *J Neurotrauma* 2004; 21:1355-1370.
  62. Sezer N, Akkus S, Gülçin U. Chronic complications of spinal cord injuries. *World J Orthoped* 2015; 6:24-33.
  63. Chiodo AE, Scelza WM, Kirshblum SC, Wuermser LA, Ho CH, Priebe MM. Spinal cord injury medicine. 5. Long-term medical issues and health maintenance. *Arch Phys Med Rehabil* 2007; 88:S76-S83.
  64. Jaglal S, Munce S, Guilcher S, Couris C, Fung K, Craven BC *et al.* Health system factors associated with rehospitalizations after traumatic spinal cord injury: a population-based study. *Spinal Cord* 2009; 47:604-609.
  65. Guilcher S, Craven BC, Calzavara A, McColl MA, Jaglal S. Is the emergency department an appropriate substitute for primary care for persons with traumatic spinal cord injury? *Spinal Cord* 2012; 51:202-208.
  66. Warburton DER, Krassioukov A, Sproule S, Eng JJ (2014). Cardiovascular Health and Exercise Following Spinal Cord Injury. In Eng JJ, Teasell RW, Miller WC, Wolfe DL, Townson AF, Hsieh JTC, Connolly SJ, Noonan VK, Loh E, McIntyre A, editors. *Spinal Cord Injury Rehabilitation Evidence*. Version 5.0. Vancouver: p. 1-48.
  67. Martin-Ginis KA *et al.* Evidence-based scientific exercise guidelines for adults with spinal cord injury: an update and a new guideline. *Spinal Cord* (2017)
  68. Cancer Care Ontario. (2017). Cancer Care Ontario Public Statement on Prostate Cancer Screening using the Prostate-Specific Antigen (PSA) Test.
  69. Cervinka T, Lynch CL, Giangregorio L, Adachi JD, Papaioannou A, Thabane L, *et al.* Agreement between fragility fracture risk assessment algorithms as applied to adults with chronic spinal cord injury. *Spinal Cord*. 2017

# SCI Primary Care Toolkit Flowsheet

Visit		Type of Patient	
<input type="checkbox"/> Initial <input type="checkbox"/> Follow Up      Follow Up #: _____		<input type="checkbox"/> CFFM <input type="checkbox"/> Community Referral <i>Reason for Referral</i> <input type="checkbox"/> General Assessment <input type="checkbox"/> Other: _____	
History			
<i>Site of Injury</i> <input type="checkbox"/> Cervical <input type="checkbox"/> Thoracic <input type="checkbox"/> Lumbar <input type="checkbox"/> Cauda Equina <input type="checkbox"/> Unknown  Physiatrist: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/> Unknown Name of Specialist: _____		<i>Injury Type</i> <input type="checkbox"/> Paraplegic <input type="checkbox"/> Quadriplegic <input type="checkbox"/> Unknown  Seen by Physiatrist in last 5 years: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/> Unknown Name of Specialist: _____	
Social History			
<i>Relationship Status:</i> <input type="checkbox"/> Married <input type="checkbox"/> Single <input type="checkbox"/> Common Law <input type="checkbox"/> Separated/Divorced <input type="checkbox"/> Other: _____		<i>Accommodations:</i> <input type="checkbox"/> Own Home <input type="checkbox"/> RH/LTC <input type="checkbox"/> Assisted Living	<i>Accommodation Accessibility:</i> <input type="checkbox"/> Yes <input type="checkbox"/> No
<i>Support Services:</i> <input type="checkbox"/> Attendant Services <input type="checkbox"/> Family Supports <input type="checkbox"/> Homecare <input type="checkbox"/> Other Agencies (eg. SCI Ontario) Other Information: _____			
Vitals			
BP: _____      HR: _____		Weight: _____      Wheelchair Weight: _____	
Orthostatic Vitals			
Lying BP: _____      Sitting BP: _____		Standing 1 min: _____      Standing 3 min: _____	
Preventative Health			
<i>Tetanus Up-to-Date (Every 10 years):</i> <input type="checkbox"/> Yes <input type="checkbox"/> No		<i>Influenza Up-to-Date (Yearly):</i> <input type="checkbox"/> Yes <input type="checkbox"/> No	

<input type="checkbox"/> Unknown	<input type="checkbox"/> Unknown		
<i>Is the Injury Above L1?</i>	<i>If Injury Above L1 – Is Pneumococcal Up-to-Date? (Once in lifetime)</i>		
<input type="checkbox"/> Yes	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown		
<input type="checkbox"/> No			
<input type="checkbox"/> N/A			
<b>Screening (if any not up-to-date, consider ordering test)</b>			
<i>Pap Up-to-Date:</i>	<i>Mammogram Up-to-Date:</i>		
<input type="checkbox"/> Yes	<input type="checkbox"/> Yes		
<input type="checkbox"/> No	<input type="checkbox"/> No		
<input type="checkbox"/> Unknown	<input type="checkbox"/> Unknown		
<input type="checkbox"/> N/A	<input type="checkbox"/> N/A		
<i>Colorectal Carcinoma:</i>	<i>Type of Colorectal Carcinoma Screening:</i>		
<input type="checkbox"/> Yes	<input type="checkbox"/> FOBT		
<input type="checkbox"/> No	<input type="checkbox"/> Colonoscopy		
<input type="checkbox"/> Unknown	<input type="checkbox"/> Sigmoidoscopy		
<input type="checkbox"/> N/A			
<i>Diabetes Screening (FBG, A1<sub>G</sub>, FBS) Up-to-Date:</i>	<i>Cholesterol Screening Up-to-Date:</i>		
<input type="checkbox"/> Yes	<input type="checkbox"/> Yes		
<input type="checkbox"/> No	<input type="checkbox"/> No		
<input type="checkbox"/> Unknown	<input type="checkbox"/> Unknown		
<input type="checkbox"/> N/A	<input type="checkbox"/> N/A		
<i>Bone Mineral Density Up-to-Date:</i>	<i>History of Fractures:</i>	<i>How Many Fractures?</i>	
<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> 1	
<input type="checkbox"/> No	<input type="checkbox"/> No	<input type="checkbox"/> 2	
<input type="checkbox"/> Unknown	<input type="checkbox"/> Unknown	<input type="checkbox"/> 3 or more	
<input type="checkbox"/> N/A	<input type="checkbox"/> N/A	Body Part(s): _____	
<i>Vitamin D (1000-2000 IU/day):</i>	<i>Calcium (1200 mg/d primarily through diet):</i>		
<input type="checkbox"/> Yes	<input type="checkbox"/> Yes		
<input type="checkbox"/> No	<input type="checkbox"/> No		
<input type="checkbox"/> Unknown	<input type="checkbox"/> Unknown		
<input type="checkbox"/> N/A	<input type="checkbox"/> N/A		
<b>Bladder</b>			
<i>Management Method:</i>	<i>Fluids:</i>	<i>Hematuria:</i>	<i>Persistent Incontinence:</i>
<input type="checkbox"/> Voluntary	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes
<input type="checkbox"/> Self-Catheterization	<input type="checkbox"/> No	<input type="checkbox"/> No	<input type="checkbox"/> No
<input type="checkbox"/> Suprapubic Catheter	<input type="checkbox"/> N/A	<input type="checkbox"/> N/A	<input type="checkbox"/> N/A
<input type="checkbox"/> Foley Catheter			
<input type="checkbox"/> Condom Catheter			
<i>UTI's in the Past Year:</i>	<i>Renal/Bladder US Done in Last 12 Months:</i>		
<input type="checkbox"/> 0	<input type="checkbox"/> Yes		

<input type="checkbox"/> 1	<input type="checkbox"/> No
<input type="checkbox"/> 2	<input type="checkbox"/> Unknown
<input type="checkbox"/> 3 or more	<input type="checkbox"/> N/A
Bladder Medications: _____	Bladder Comments: _____
_____	_____

**Bowel**

<i>Management Method?</i>	<i>Routine Length?</i>	<i>Frequency?</i>
<input type="checkbox"/> Voluntary	<input type="checkbox"/> Less than 1 Hour	<input type="checkbox"/> Daily
<input type="checkbox"/> Manual Feces Removal	<input type="checkbox"/> More than 1 Hour	<input type="checkbox"/> Every 2 Days
<input type="checkbox"/> Digital Stimulation	<input type="checkbox"/> N/A	<input type="checkbox"/> More than 2 Days
<input type="checkbox"/> Rectal Stimulation		
<i>Presence of Blood in Stool?</i>	<i>Persistent Incontinence?</i>	<i>Adequate Fibre (15g/d)?</i>
<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes
<input type="checkbox"/> No	<input type="checkbox"/> No	<input type="checkbox"/> No
<input type="checkbox"/> N/A	<input type="checkbox"/> N/A	<input type="checkbox"/> N/A
Bowel Medications: _____	Bladder Comments: _____	
_____	_____	

**Cardiovascular**

<i>History of Heart Disease?</i>	<i>Do You smoke?</i>	<i>Do You Exercise?</i>
<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes
<input type="checkbox"/> No	<input type="checkbox"/> No	<input type="checkbox"/> No
	Exercise: _____	
<i>Symptoms (within 1 year)</i>		
<i>Chest Pain?</i>	<i>Palpitations?</i>	<i>Shortness of Breath?</i>
<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes
<input type="checkbox"/> No	<input type="checkbox"/> No	<input type="checkbox"/> No
	<i>Increased Ankle/Leg Swelling?</i>	<i>Episodes of weakness, dizziness facial droop or slurred speech?</i>
	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes
	<input type="checkbox"/> No	<input type="checkbox"/> No

**Autonomic Dysreflexia (AD)**

A condition of unopposed sympathetic activity occurring in SCI with lesion at T6 or above; characterized by:  
 - Increased BP, headache, anxiety, facial flushing, sweating above lesion; goose bumps below lesion, nasocongestion

<i>Is the Injury Above T6?</i>	<i>Does the Patient Have an Understanding of AD?</i>
<input type="checkbox"/> Yes	<input type="checkbox"/> Yes
<input type="checkbox"/> No	<input type="checkbox"/> No
<input type="checkbox"/> Unknown	<input type="checkbox"/> N/A
<input type="checkbox"/> N/A	
<i>Has the patient experienced AD?</i>	<i>Frequency of AD?</i>
<input type="checkbox"/> Yes	<input type="checkbox"/> Rarely
<input type="checkbox"/> No	<input type="checkbox"/> Daily
<input type="checkbox"/> Unknown	<input type="checkbox"/> Weekly

<input type="checkbox"/> N/A	<input type="checkbox"/> Monthly
<i>AD Wallet Card?</i>	<i>ER Visits Due to AD?</i>
<input type="checkbox"/> Yes	<input type="checkbox"/> Yes
<input type="checkbox"/> No	<input type="checkbox"/> No
<input type="checkbox"/> N/A	<input type="checkbox"/> N/A
<i>AD Triggers?</i>	<i>Medication(s) for AD:</i>
<input type="checkbox"/> Bladder Issue	_____
<input type="checkbox"/> Bowel Issue	_____
<input type="checkbox"/> None	_____
<input type="checkbox"/> Other: _____	

**Skin**

<i>Current Pressure Ulcer?</i>	<i>Previous Pressure Ulcer?</i>
<input type="checkbox"/> Yes	<input type="checkbox"/> Yes
<input type="checkbox"/> No	<input type="checkbox"/> No
<input type="checkbox"/> N/A	<input type="checkbox"/> N/A
Current Ulcer Location: _____	Previous Ulcer Location: _____
<i>Current Ulcer Being Treated?</i>	<i>Practice Pressure Relief? (Ideally every 15-30 min)</i>
<input type="checkbox"/> Yes	<input type="checkbox"/> Yes
<input type="checkbox"/> No	<input type="checkbox"/> No
<input type="checkbox"/> N/A	<input type="checkbox"/> N/A
<i>Skin Checks? (Recommended daily):</i>	<i>Nutrition Assessed? (Bloodwork or referral)</i>
<input type="checkbox"/> Yes	<input type="checkbox"/> Yes
<input type="checkbox"/> No	<input type="checkbox"/> No
<input type="checkbox"/> N/A	<input type="checkbox"/> Made Today
Skin Care Comments: _____	<input type="checkbox"/> N/A

**Mobility**

<i>Is the Patient Ambulatory?</i>	<i>Is the Patient Wheelchair Dependent?</i>	
<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	
<input type="checkbox"/> No	<input type="checkbox"/> No	
<input type="checkbox"/> N/A	<input type="checkbox"/> N/A	
<i>Transfer Method?</i>	<i>Wheelchair Type:</i>	<i>Age of Wheelchair:</i> _____
<input type="checkbox"/> Independent	<input type="checkbox"/> Manual	<i>Last Seating Assessment:</i> _____
<input type="checkbox"/> Pivot	<input type="checkbox"/> Power	
<input type="checkbox"/> Sliding Board		
<input type="checkbox"/> Mechanical Lift		
<i>Gait Aids?</i>	<i>Falls?</i>	<i>Any Wheelchair/Seating Concerns:</i> _____
<input type="checkbox"/> Walker	<input type="checkbox"/> Yes	_____
<input type="checkbox"/> Cane	<input type="checkbox"/> No	_____
<input type="checkbox"/> None		
<input type="checkbox"/> Other: _____		



<b>Pain</b>		
<p><i>Does the Patient Have Any Pain?</i></p> <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<p><i>Pain Intensity From 0-10:</i></p> <input type="checkbox"/> 0 <input type="checkbox"/> 6 <input type="checkbox"/> 1 <input type="checkbox"/> 7 <input type="checkbox"/> 2 <input type="checkbox"/> 8 <input type="checkbox"/> 3 <input type="checkbox"/> 9 <input type="checkbox"/> 4 <input type="checkbox"/> 10 <input type="checkbox"/> 5	<p><i>Type of Pain:</i></p> <input type="checkbox"/> Neuropathic <input type="checkbox"/> Neurogenic <input type="checkbox"/> Nociceptive <input type="checkbox"/> Complex
<p><i>Pain Affecting Function?</i></p> <input type="checkbox"/> Yes <input type="checkbox"/> No		
<p><i>Pain Medications Currently Using:</i> _____</p> <p>_____</p> <p>_____</p>	<p><i>Pain Medications Previously Used:</i> _____</p> <p>_____</p> <p>_____</p>	
<p><i>Non-Pharmacological Treatments:</i> _____</p> <p>_____</p> <p>_____</p>	<p><i>Pain Comments:</i> _____</p> <p>_____</p> <p>_____</p>	
<b>Spasticity</b>		
<p><i>Does the Patient Have Any Spasticity?</i></p> <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<p><i>Is Spasticity Bothering?</i></p> <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<p><i>Worsening in Past 12 Months?</i></p> <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
<p><i>Spasticity Comments:</i> _____</p> <p>_____</p> <p>_____</p>	<p><i>Spasticity Medications:</i> _____</p> <p>_____</p> <p>_____</p>	
<b>Neurology/MSK</b>		
<p><i>Neurological Change?</i></p> <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<p><i>Neurological/MSK Comments:</i> _____</p> <p>_____</p> <p>_____</p>	
<b>Respiratory</b>		
<p><i>Infections/Pneumonia in Past Year?</i></p> <input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 or more (consider referral to Specialist for Pneumonia infections)	<p><i>Respiratory Comments:</i> _____</p> <p>_____</p> <p>_____</p>	
<p><i>Hospitalizations?</i></p> <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<p><i>Spirometry in Past 2 Years? (If Unknown, consider spirometry)</i></p> <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown <input type="checkbox"/> N/A	<p><i>Spirometry Result:</i> _____</p> <p>_____</p> <p>_____</p>
<p><i>Sleep Study?</i></p> <input type="checkbox"/> Yes <input type="checkbox"/> No	<p><i>Sleep Study Result:</i> _____</p> <p>_____</p> <p>_____</p>	<p><i>Daytime Somnolence?</i></p> <input type="checkbox"/> Yes <input type="checkbox"/> No
		<p><i>If Yes to Daytime Somnolence:</i></p> <input type="checkbox"/> Sitting & Reading <input type="checkbox"/> Watching TV

<input type="checkbox"/> N/A _____	<input type="checkbox"/> N/A	<input type="checkbox"/> Sitting in Active Public Place
<i>Snoring?</i>	<b>If Somnolence Present, Consider Sleep Study</b>	
<input type="checkbox"/> Yes	<i>Witnessed Apneas?</i>	
<input type="checkbox"/> No	<input type="checkbox"/> Yes	
<input type="checkbox"/> N/A	<input type="checkbox"/> No	
	<input type="checkbox"/> N/A	

**Sexual**

<i>Patient is Sexually Active/Sexual Acvitivity Desired?</i>	<i>Satisfied Sexually?</i>	<i>Erectile Dysfunction?</i>
<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes
<input type="checkbox"/> No	<input type="checkbox"/> No	<input type="checkbox"/> No
	<input type="checkbox"/> N/A	<input type="checkbox"/> N/A
<i>Are There Any At Risk Sexual Practices?</i>	<i>Currently Being Treated for Sexual Function?</i>	
<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	
<input type="checkbox"/> No	<input type="checkbox"/> No	
<input type="checkbox"/> Not Asked	<input type="checkbox"/> Declined	
<input type="checkbox"/> N/A	<input type="checkbox"/> N/A	
<i>Fertility Desired?</i>	<i>Contraception?</i>	
<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	
<input type="checkbox"/> No	<input type="checkbox"/> No	
<input type="checkbox"/> N/A	<input type="checkbox"/> N/A	
<i>Comments:</i> _____		
_____		
_____		

**Mental Health**

<i>History of Depression?</i>	<i>Depression Currently Being Treated?</i>
<input type="checkbox"/> Yes	<input type="checkbox"/> Yes
<input type="checkbox"/> No	<input type="checkbox"/> No
<input type="checkbox"/> N/A	<input type="checkbox"/> N/A
<i>Depression Counselling:</i> _____	<i>Depression Medication:</i> _____
_____	_____
_____	_____
<i>History of Anxiety?</i>	<i>Anxiety Currently Being Treated?</i>
<input type="checkbox"/> Yes	<input type="checkbox"/> Yes
<input type="checkbox"/> No	<input type="checkbox"/> No
<input type="checkbox"/> N/A	<input type="checkbox"/> N/A
<i>Anxiety Counselling:</i> _____	<i>Anxiety Medication:</i> _____
_____	_____
_____	_____
<i>Mental Health Comments:</i> _____	
_____	
_____	

_____		
_____		
<b>Summary</b>		
Summary: _____		
_____		
_____		
_____		
<b>Plan</b>		
Immunizations: _____		
_____		
<i>Tetanus Shot Given Today?</i>	<i>Influenza Shot Given Today?</i>	<i>Pneumovax Shot Given Today?</i>
<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes
<input type="checkbox"/> No	<input type="checkbox"/> No	<input type="checkbox"/> No
<input type="checkbox"/> Declined	<input type="checkbox"/> Declined	<input type="checkbox"/> Declined
<input type="checkbox"/> N/A	<input type="checkbox"/> N/A	<input type="checkbox"/> N/A
	<input type="checkbox"/> Out of Season	
Preventative Screening: _____		
_____		
<i>Pap?</i>	<i>Mammo Scheduled/Req Given?</i>	<i>CRC Scheduled/Req Given?</i>
<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes
<input type="checkbox"/> No	<input type="checkbox"/> No	<input type="checkbox"/> No
<input type="checkbox"/> Declined	<input type="checkbox"/> Declined	<input type="checkbox"/> Declined
<input type="checkbox"/> Done Today	<input type="checkbox"/> N/A	<input type="checkbox"/> N/A
<input type="checkbox"/> N/A		
<i>Diabetes Req Given?</i>	<i>Cholesterol Req Given?</i>	
<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	
<input type="checkbox"/> No	<input type="checkbox"/> No	
<input type="checkbox"/> Declined	<input type="checkbox"/> Declined	
<input type="checkbox"/> N/A	<input type="checkbox"/> N/A	
Bone Health: _____		
_____		
<i>BMD Scheduled/Req Given?</i>	<i>Vitamin D?</i>	<i>Calcium?</i>
<input type="checkbox"/> Yes	<input type="checkbox"/> Recommended	<input type="checkbox"/> Recommended
<input type="checkbox"/> No	<input type="checkbox"/> Declined	<input type="checkbox"/> Declined
<input type="checkbox"/> Declined	<input type="checkbox"/> N/A	<input type="checkbox"/> N/A
<input type="checkbox"/> N/A		
Bladder: _____		
_____		
<i>Renal Bloodwork (CR, eGFR,lytes) Ordered?</i>		<i>Renal/Bladder U/S Ordered?</i>
<input type="checkbox"/> Yes		<input type="checkbox"/> Yes
<input type="checkbox"/> No		<input type="checkbox"/> No
<input type="checkbox"/> Declined		<input type="checkbox"/> Declined

<input type="checkbox"/> N/A  <i>Pt Has 3+ UTIs Referral to Specialist Made?</i> <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Declined <input type="checkbox"/> N/A <i>Bowel:</i> _____	<input type="checkbox"/> N/A  <i>Pt has Hematuria, referral to specialist made?</i> <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Declined <input type="checkbox"/> N/A	
<hr/> <i>Bowel Program Too Lengthy: Referred to Specialist?</i> <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Declined <input type="checkbox"/> N/A <i>Too Lengthy: Reviewed Bowel Management?</i> <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Declined <input type="checkbox"/> N/A <i>Patient Has Bowel Incontinence, Referred to Specialist?</i> <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Declined <input type="checkbox"/> N/A <i>Pt Not Receiving Adequate Fibre, recommended Fibre:</i> <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Declined <input type="checkbox"/> N/A <i>Autonomic Dysreflexia:</i> _____	<hr/> <i>Bowel Program Too Infrequent: Referred to Specialist?</i> <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Declined <input type="checkbox"/> N/A <i>Too Infrequent: Review Bowel Management?</i> <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Declined <input type="checkbox"/> N/A <i>Pt Has Blood in Stool, Referred to Specialist?</i> <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Declined <input type="checkbox"/> N/A	
<hr/> <i>Provided AD Wallet Card?</i> <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <i>Skin:</i> _____	<hr/> <i>Assessed AD severity, provided education?</i> <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
<hr/> <i>Pt Has Ulcer; Refer to Wound Care?</i> <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Declined <input type="checkbox"/> N/A <i>Pain:</i> _____	<hr/> <i>Provided Pressure Relief Education?</i> <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<hr/> <i>Provided Skin Check Education?</i> <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
<hr/> <i>Patient's Pain is Affecting Function Action?</i> <input type="checkbox"/> Assessed & Changed Management		

Ordered Investigations  
 Referred to Specialist  
 Declined  
 N/A  
*Spasticity:* \_\_\_\_\_

---

<i>Bothersome, Reassessed Spasticity Management?</i> <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Declined <input type="checkbox"/> N/A <i>Neurological/MSK:</i> _____	<i>Worsening Past 12 months, Referred to Specialist?</i> <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Declined <input type="checkbox"/> N/A
--	--

---

*Significant Change in Neurological Function Action?*  
 Assessed & Changed Management  
 Referred to Specialist  
 None  
 N/A  
*Respiratory:* \_\_\_\_\_

---

<i>Pt has 2+ Infections in past year; referred to specialist?</i> <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Declined <input type="checkbox"/> N/A <i>Sexual:</i> _____	<i>Spirometry Ordered?</i> <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Declined <input type="checkbox"/> N/A	<i>Sleep Study Ordered?</i> <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Declined <input type="checkbox"/> N/A
---	--	---

---

<i>Not Sexually Satisfied; Referred to Specialist?</i> <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Declined <input type="checkbox"/> N/A <i>Discussed Safe Sexual Practices?</i> <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Declined <input type="checkbox"/> N/A <i>Mental Health:</i> _____	<i>Discussed Management of ED?</i> <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Declined <input type="checkbox"/> N/A	<i>Referral to Fertility Clinic Made?</i> <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Declined <input type="checkbox"/> N/A
--	--	---

---

<i>Depression Treatment:</i> <input type="checkbox"/> Counselling <input type="checkbox"/> Medication Adjustment <input type="checkbox"/> Declined Treatment <input type="checkbox"/> N/A	<i>Anxiety Treatment:</i> <input type="checkbox"/> Counselling <input type="checkbox"/> Medication Adjustment <input type="checkbox"/> Declined Treatment <input type="checkbox"/> N/A
---	--

Follow Up Plan			
<i>1 year?</i>	<i>Once Tests Complete?</i>	<i>With Family Doctor (within 6 months)?</i>	<i>As Needed?</i>
<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes
<input type="checkbox"/> No	<input type="checkbox"/> No	<input type="checkbox"/> No	<input type="checkbox"/> No
<i>Follow Up Plan Comments:</i> _____			
_____			
_____			