Parkinson’s Disease

Parkinson’s disease is caused by a degeneration of the cells which produce dopamine in the substantia nigra area of the brain. It is not known why the cells are damaged or destroyed although there are many theories. It is possible that a combination of genetic and environmental factors contribute to the development of Parkinson’s. More research is needed to completely understand how, why and when this disorder occurs. Symptoms of Parkinson’s typically appear when over half of the brain’s dopamine-producing cells are lost. (Bunting-Perry, L.K., 2006)

Dopamine is also essential for involuntary movements including control of: blood pressure and bowel function.

Loss of dopamine can also affect mood and thinking.

Parkinson’s disease (PD) is not fatal, but it can reduce longevity. The disease progresses more quickly in older patients, and may lead to severe incapacity within 10 - 20 years. Older patients also tend to have muscle freezing and greater declines in mental function and daily functioning than younger people.

(Retrieved from https://www.parkinson.bc.ca/)

At the present time there is no known cure for Parkinson’s disease. There are ways to improve quality of life and manage symptoms. Each year, more and improved treatments are being introduced.
Levodopa (L-dopa) is an amino acid that the brain converts into dopamine (should not be taken with a high protein diet).

Patients are predisposed to 'on-off' periods, experiencing alternating periods of normal mobility & immobility due to fluctuating levels of dopamine.

During the ‘off’ periods, you’ll find patients experiencing 'gait freeze' (akinesia), as if the feet are glued to the floor.

This can contribute to falls, urinary incontinence, and disability. Reducing ‘on-off’ fluctuations requires careful titration & combination of drug therapy to enhance dopamine receptors (dopamine agonist – Mirapex, Requip).

In moderate to late stages of the disease, dopamine replacement therapy (D-RT) like Sinemet (Levodopa/Carbidopa) is no longer effective in improving motor function.

The most common motor symptoms are:

- **Resting tremor** – repetitive shaking movements occurring in the arms and/or legs at rest. (Tremors are the first symptom to appear in about 70% of people with Parkinson’s).

- **Tremor**: ‘pin rolling.’

- **Rigidity**: ‘cogwheeling.’

- **Bradykinesia** – slowness of movement, including all actions such as walking and writing.

- **Lack of coordination** – postural impairment or loss of balance.

- **Cognitive and mood changes**, including:
  - Depression.
  - Anxiety.
  - Forgetfulness and confusion.
  - Loss of impulse control.
  - Dementia, hallucinations.
  - Delusions.

- **Urinary Problems.**

- **Pain**

- **Constipation**

**Advancing Stages**

The Parkinson’s journey is different for everyone. As the disease progresses, patients may find that they require assistance with mobility, personal care and other aspects of their daily routine. Medications may become less effective in treating all symptoms. In the advancing stages of Parkinson’s, care is focused on safety, comfort and the best possible quality of life.

People with long term neurological conditions have variable prognoses and needs arising at any time in the course of illness.

The palliative care approach views the person beyond their disease and prognosis and as a person who is living and dying with a progressive disease.

Surgery is available but it is reserved for refractory symptoms. There are three symptoms that can be dramatically improved with surgery: Tremor, dyskinesia and motor fluctuations. If a patient is suffering from one of those symptoms, then alleviating that symptom will improve their quality of life. The surgery for tremor is
thalamotomy or thalamic deep brain stimulation (DBS) and can be expected to reduce tremor about 80%. Pallidal DBS can be expected to reduce dyskinesia about 90%.

Palliative care is active care

For most patients, symptoms are treated and managed medically. The control of symptoms for people with any neurodegenerative disorder is a key part of holistic management.

There may be difficult decisions and changes that need to be addressed. Discussions may be needed regarding psychological issues, needs for tube feeding, ventilation or even end of life care.

Those with Parkinson’s, their caregivers and their family members need support and the appropriate resources to cope effectively.

Advance Care Planning provides a ‘roadmap’ driven by a patient’s goals of care and is directed while they are cognitively intact.

Advance directives allow the care team to act in a patient’s ‘best interest,’ allow family time to consider implications of treatment and respect and honor a patient’s right to refuse or withdraw treatment.

The palliative care approach provides the “Right care, at the right time, in the right place.”

DBS Clinic

The DBS electrode is just a piece of platinum sitting in the brain. It does nothing until the stimulation is turned on. The benefits of DBS depend on using the right amount of stimulation. Too little stimulation will not improve the PD symptoms enough. Too much stimulation will cause unwanted side-effects. Setting the stimulation requires experience and some trial and error. Patients come to the DBS clinic 6 weeks after surgery to begin their stimulation trials. The DBS is turned on and patients assess the effects for several days and then return for adjustments.

(Retrieved from www.drhoney.org/dbs/)

References

2. Retrieved from https://www.parkinson.bc.ca/ February 20, 2018
WHO’S NEW TO THE TEAM

Welcome Suzy Stever

Suzy grew up in Prince George and graduated from UBC with a BSc. Pharmacy in 2001. She recently moved back to P.G. after 12 years in St. John’s, NL where she worked as a provincial lead pharmacist in Gynecology Oncology and in Medical Oncology.

Suzy is really excited to be a part of the Northern Health Palliative Care Consultation team and is, “lucky to work on such a great team.” She is working half-time with the palliative care consultation team and half-time as a UHNBC clinical pharmacist. As the Palliative Care Pharmacist Lead, she looks forward to further developing her role in education, consultation services for symptom and medication management and in clinical care.

When not at work, Suzy enjoys playing ultimate frisbee, travelling and playing outside with her husband and 2 dogs, Khalil and Kaslo.

Welcome Tamara Graham

Tamara graduated from the University of New Brunswick in 1990 with a Bachelor of Nursing degree and moved to Prince George as a new grad. Her first nursing job was at UHNBC working on 4 South – orthopedics and general surgery. Tamara’s plan was to work in the west one year and then move back “home,” but here she is in Dawson Creek 28 years, four children and one granddaughter later. “The west has been wonderful to me and to my family.” Still, Tamara is a “Maritimer” at heart. She loves the water and misses the lobster.

Most of Tamara’s nursing experience has been in the Residential Care and Community settings. Her past roles include Long Term Care Case Manager, Home & Community Care Hospital Liaison, Support & Education Coordinator with the Alzheimer Society of BC and the South Peace Clinical Nurse Educator for Residential Care and Home & Community Care. She is especially passionate about gerontology, dementia care and palliative care. “I love to learn, and I embrace this Palliative Care Nurse Consultant opportunity until Annie Leong’s return in August.”

In her downtime, she enjoys gardening, reading, walking and spending time with her two French bulldogs. Recently, Tamara bought an African Djembe drum and is having fun playing with this. She hopes to try kayaking this Summer and aspires to travel more.
# EDUCATIONAL OPPORTUNITIES

## Palliative Education Sessions by WebEx / Teleconference

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<th>MONTH</th>
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<tbody>
<tr>
<td>March</td>
<td>Wed, Mar 7, from 3-4 pm PST&lt;br&gt;Thu, Mar 15, from 2-3 pm PST&lt;br&gt;Wed, Mar 21, from 3-4 pm PST</td>
<td>Kath Murray 4F Changes in Bowel and Bladder Function for PSWs</td>
<td>Patti Doering</td>
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<td>April</td>
<td>Thu, Apr 5, from 2-3 pm PST&lt;br&gt;Wed, Apr 11, from 3-4 pm PST&lt;br&gt;Thu, Apr 19, from 2-3 pm PST</td>
<td>LEAP Module 2: Taking Ownership</td>
<td>Jenny Kenny</td>
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<td>May</td>
<td>Thu, May 3, from 2-3 pm PST&lt;br&gt;Wed, May 9, from 3-4 pm PST&lt;br&gt;Thu, May 17, from 2-3 pm PST&lt;br&gt;Wed, May 23, from 3-4 pm PST</td>
<td>To Be Determined</td>
<td>Jennifer Ferguson</td>
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<td>June</td>
<td>Thu, Jun 7, from 2-3 pm PST&lt;br&gt;Wed, Jun 13, from 3-4 pm PST&lt;br&gt;Thu, Jun 21, from 2-3 pm PST</td>
<td>To Be Determined</td>
<td>Suzy Stever</td>
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If you are interested in having your name added to our distribution list, please contact Janet.Grainger@northernhealth.ca

*Please note webinar details are subject to change.

## Pallium Canada’s Learning Essential Approaches to Palliative Care (LEAP)

LEAP education opportunities will be offered near you throughout this year. Stay tuned for further information via email.

## Victoria Hospice’s Northern Medical Intensive Course

Your NHPC Consultation team is once again partnering with Victoria Hospice to offer the MI Course to NH staff, physicians and partners. Sixty registrants from across disciplines, communities and areas have signed up to take advantage of this great opportunity. Thank you to the managers for supporting their staff to attend and to the participants for making palliative care education a priority! We will update our readers on how the course went in our next newsletter.

Stacey Joyce
Lead – NH Palliative Care Consultation