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# PARKINSON'S – AN OVERVIEW

Gill Forwood Parkinson's Nurse  
Specialist

Parkinson's Treatment Centre,  
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# What is Parkinson's ?

- A chronic, progressive, neurological, degenerative disorder
- Occurs when there is loss of dopamine producing cells in the substantia nigra within the basal ganglia
- Clinical signs evident when about 80% are lost
- Now known that condition probably starts many years before clinical signs evident



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# Incidence

- Approximately 127,000 people in the UK with PD (3) 10,000 new cases per year in UK. 6,000 in Wales and Approx 1,500 in ABMU
- Affects :-
  - 1 in 500 of the general population
  - 1 in 100 over 60 years
  - 1 in 50 over 80 years
  - 1 in 20 diagnosed will be aged under 40



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# Parkinsonism

- Idiopathic- most common – Parkinson's, PD
- Vascular
- Parkinson's Plus Syndromes
  - Progressive Supra Nuclear Palsy (PSP)
  - Cortico Basal Degeneration (CBD)
  - Multiple System Atrophy (MSA)
- Toxin induced Parkinsonism (MPTP, copper)



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# Causes

- Environmental factors
- Genetic susceptibility
- Familial risk
- Drug Induced - neuroleptics



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# Signs & Symptoms

- **Cardinal signs** - required for diagnosis
- Tremor
- Bradykinesia
- Muscular rigidity
- Posture and balance problems-later on



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# Motor Symptoms

- Initially unilateral
- Tremor
- Mobility problems
- Difficulty with fine manual tasks
- Reduced facial expression
- Change in posture and gait

# Motor Symptoms cont.

- Poor balance and falls
- Swallowing problems – drooling, choking, aspiration
- Initiation problems
- Freezing
- Communication difficulties





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# Non Motor Symptoms

- Cognitive deficiencies – difficulty problem solving, Bradyphrenia, Short term memory loss, Visuo-spatial problems
- Dementia
- Depression
- Anxiety
- Apathy



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# Non Motor Features cont.

- Olfactory deficiencies (smell and taste)
- Sleep disturbances – RLS, REM sleep disorder, vivid dreams, nightmares, hallucinations
- Fatigue
- Pain
- Bowel and bladder problems
- Sexual dysfunction

# The Stages of Parkinson's

- **Prodromal** — Period of up to 20yrs before motor symptoms occur. Hyposmia, REM sleep disorder, Excessive daytime sleepiness, Depression, Anxiety
- **Stable** - good predictable response to therapy, No motor fluctuations
- **Unstable** - Fluctuations, Delayed 'on', wearing off, Increasing Non Motor Symptom burden, Balance problems
- **Advanced** - Repeated falls, increasing dependency, risk of choking/aspiration- pneumonia
- **Palliative stage** — Nursing Home, Palliative Care



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# Drug Treatment

• **Gold standard** - Levodopa preparations –  
Levodopa plus a dopa-decarboxylase inhibitor to  
reduce side effects of nausea, vomiting and  
cardiovascular effects.

- Madopar (co-beneldopa- L-dopa and benserazide),  
Dispersible, Capsule and Controlled release
- Sinemet (Co-careldopa – L-dopa and carbidopa),  
Tablets in varying strengths, controlled release.
- Duodopa-continuous L-dopa gel via jej peg
- Stalevo



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# Drug Treatments cont.

- **Dopamine Agonists** – Pramipexole, Rotigotine, Ropinirole, Apomorphine
- **MAOB Inhibitors** – Selegeline, Rasagiline, Safinamide
- **COMT Inhibitors** – Entacapone, Tolcapone, Opicapone
- **Amantadine**
- **Anticholinergics** – Trihexyphenidyl



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# Drug Side effects

- Nausea, vomiting, drowsiness, postural hypotension, confusion, dry mouth, constipation
- Long term side effects of Levodopa - motor fluctuations:

End of dose deterioration

On/Off syndrome

Dyskinesia

Psychosis

Hallucinations



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# Management of Motor Fluctuations

- Adjustments to medication regime e.g
- Increasing/decreasing dose, adding in another medication, splitting doses into smaller, frequent doses
- Apomorphine; injections or infusion
- Dupdopa infusion
- Deep Brain Stimulation
- Medication regimes can be very complex and individual
- Very important that medication regimes are adhered to especially timing



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# Drugs to Avoid in PD

- Anti-emetics

Prochlorperazine ( Stemetil)

Metoclopramide ( Maxalon)

- Safe anti-emetics Domperidone,  
Ondansetron, Cyclizine

- Neuroleptics

Chlorpromazine (Largactil)

Haloperidol ( Serenace)

Trifluoperazine (Stelazine)



# Oral Hygiene problems

- Reduced dexterity – oral hygiene challenging
- Tremor
- Fatigue with repetitive action
- Dry mouth – drug reaction
- Sugar cravings
- Motor function affecting proper chewing
- Weight Loss – poorly fitting dentures



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# Oral Hygiene problems cont.

- Apathy
- Depression
- Cognitive decline with Forgetfulness-attention to personal care, Missed appointments
- Dyskinesia – grinding of teeth
- Motor fluctuations



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# Points to Take Away with you

- Correct times of medication is vital in maintaining normality for people with Parkinson's
- Even with medication taken on time their control can fluctuate
- Early morning appointments may be problematic
- Parkinson's symptoms eg. Tremor will worsen if out of comfort zone
- Parkinson's is a complex and fluctuating condition- patients may walk into the department independently but may need assistance to leave

# Thank you for listening,

## Any questions?

### Contact details

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