DEMENTIA SERVICES INFORMATION AND DEVELOPMENT CENTRE

promoting excellence in dementia care

DEMENTIA AND MEDICATION

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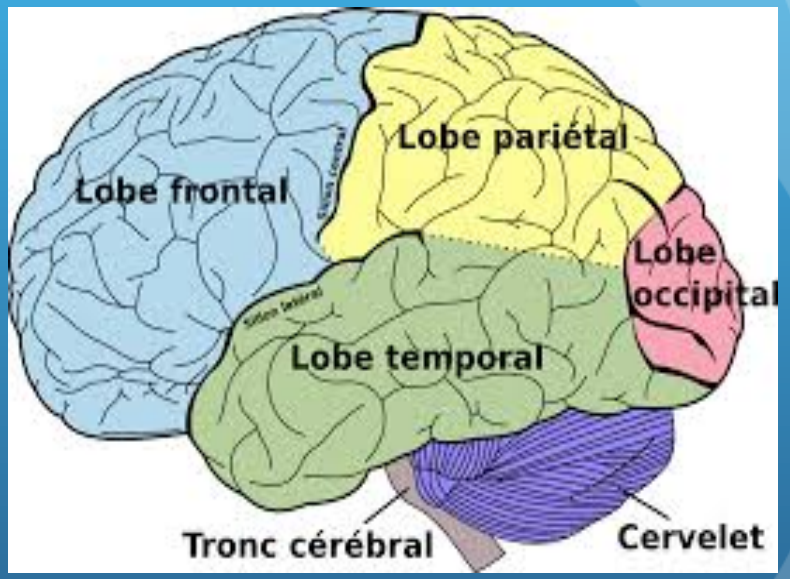
SUMMARY OF TODAY'S TALK

- Dementia-definition, types
- Poly-pharmacy
- Types of medication used elderly patients and dementia

WHAT IS DEMENTIA?

- The development of multiple higher cortical deficits, including memory impairment in the absence of clouding of consciousness (ICD 10) .
- Cortical functions include thinking, understanding, learning, judgment.
- Differentiated on basis of cause.



CAUSES OF DEMENTIA

- Alzheimer's Disease (AD)>50%.
- Vascular Dementia.
- Many people have mixed dementia ie combination of AD and VaD.
- Lewy Body Dementia (LBDT).
- Fronto-temporal Dementia (FTD)-behavioural variant, semantic variant and non-fluent variant.

OTHER CAUSES

- Neurodegenerative disorders:
  - Cortico-basal degeneration
  - Multi-system atrophy
  - Parkinson's Disease
- AIDS
- Stroke related illnesses eg CADASIL, MELAS

RISK FACTORS FOR DEMENTIA

UNMODIFIABLE

- Age
- Family history
- Down's syndrome

MODIFIABLE

- Vascular risk factors eg High BP, Cholesterol
- Alcohol
- Smoking
- Diabetes
- Depression

IMPORTANCE OF DIAGNOSIS

- Cause may be reversible e.g. thyroid abnormality, vitamin deficiency
- Treatment available
- Medical, legal and social problems with a diagnosis of dementia eg long-term care, power of attorney.

MEDICATION AND DEMENTIA

1. Treat illness

2. Treat symptoms

3. Treat associated illness eg depression

TYPES OF MEDS USED IN DEMENTIA

- Anti-dementia drugs: cholinesterase inhibitors, memantine
- Meds that control underlying risk factors eg aspirin to keep blood thin, anti-hypertensives
- Meds to deal with symptoms of dementia eg anti-depressants, anti-psychotics, appetite stimulants

TREAT UNDERLYING CAUSE

- NO CURE
- Cholinesterase inhibitors: used to help slow progression in Alzheimer's Disease
- Work by inhibiting cholinesterase, an enzyme that breaks down acetyl choline (Ach)
- Memantine: blocks NMDA-type glutamate receptors.
- Some benefit in moderate-severe AD, no evidence for use in mild AD

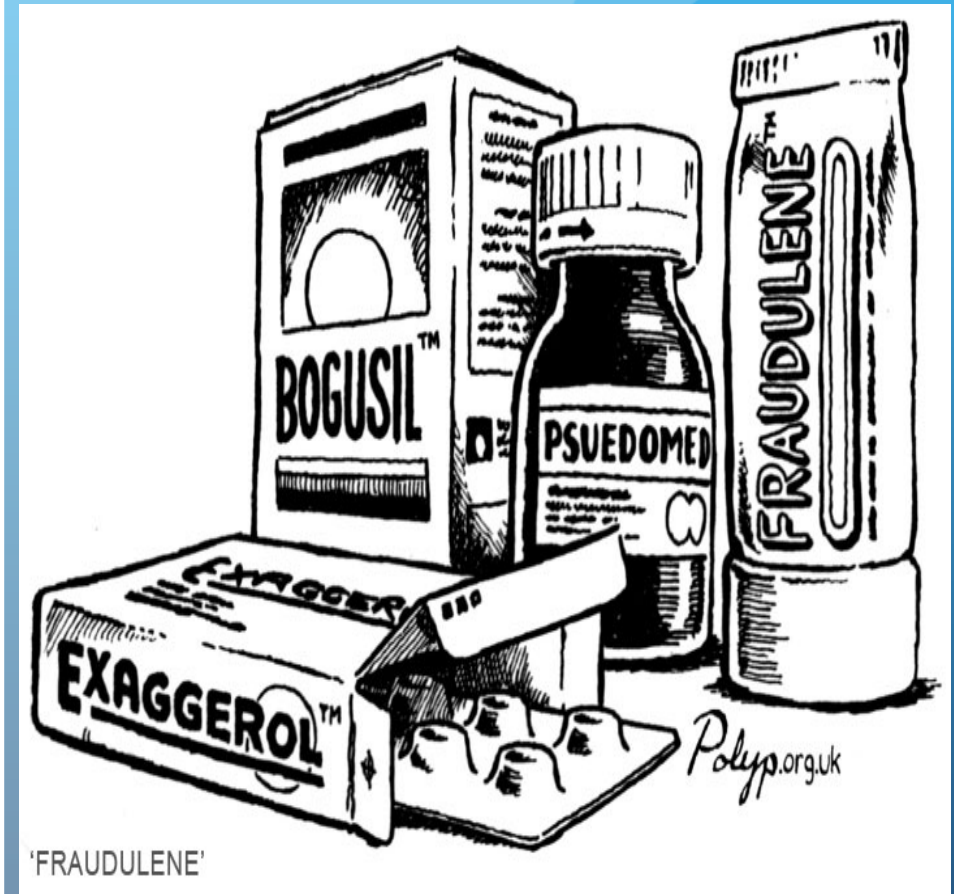
OTHER MEDS….

- Elderly people often on many other medications
- Bone stengthening drugs eg Calcium supplements, bisphosphonates
- Meds for heart disease
- Meds for kidney disease

POLYPHARMACY

- Multiple definitions
- Some numerical eg > 6 meds
- Others clinical-therapeutic vs non- or contra-therapeutic
- Probably best described as INAPPROPRIATE PRESCRIBING

RISKS OF POLYPHARMACY



'FRAUDULENE'

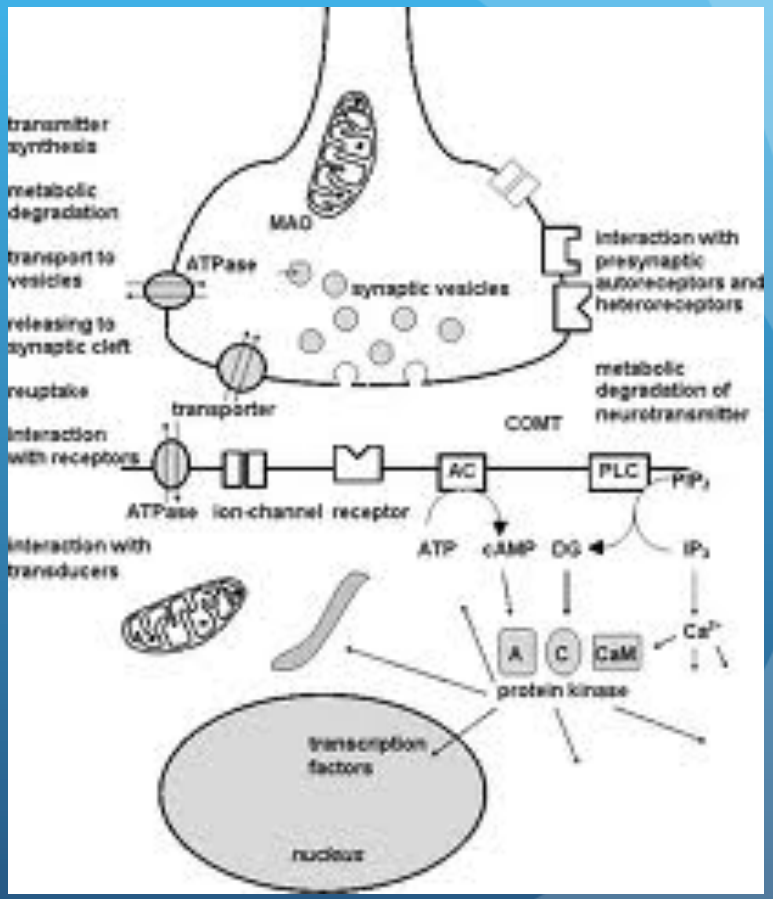
- Side effects
- Drug-drug interactions
- Drug-disease interactions
- Evidence that pharmaceutical care may improve appropriateness of prescribing and reduce side effects but evidence of clinical improvement not clear (Cochrane 2012)

DEPRESSION AND DEMENTIA

- Reported rates vary 8-30%
- May be > 40% in hospitalised/LTC patients
- Most studies done on AD
- Some evidence that rates may be higher in other types of dementia eg LBD, Vascular etc
- Long hx depression increases risk of dementia
- New onset depression may be a dementia prodrome
- Studies on use of medication in this group very limited

USE OF ANTI-DEPRESSANTS IN DEMENTIA

- Complex mechanisim of action-Won't discuss!
- Underlying depression
- Mood lability
- Tearfulness



ANTI-DEPRESSANTS: GROUPS

- SSRIs: eg Citalopram, Escitalopram, Sertraline, Fluoxetine, Paroxetine-le
- SNRIs: eg Venlafaxine, Duloxetine
- TCADs: eg amitryptilene
- Atypicals eg Mirtazapine

SIDE EFFECTS OF ANTI-DEPRESSANTS

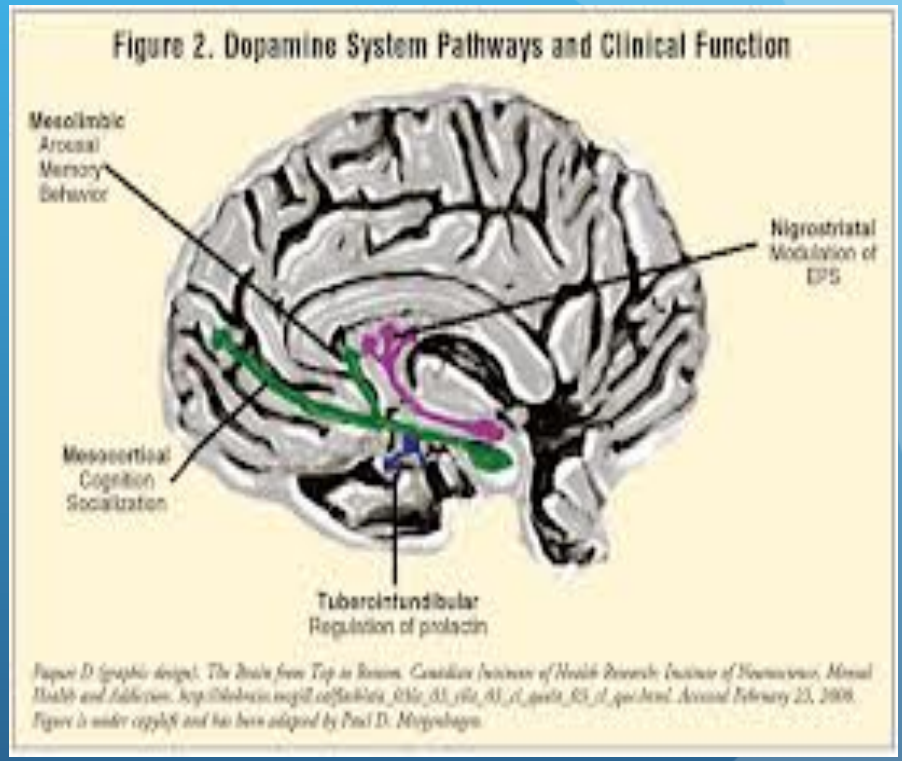
- Low sodium-risk with all except Mirtazapine
- Cardiac side effects eg QTc prolongation-TCADs, higher doses of Citalopram
- Increased BP-Venlafaxine at higher doses
- Weight gain-Mirtazapine

RISKS OF DEPRESSION

- Earlier mortality-shown in studies on post-stroke depression; studies on younger people with recurrent depression
- Poor quality of life
- Risk of self-harm
- Worsens cognitive impairment
- Higher rates of heart disease in those with recurrent depression

ANTI-PSYCHOTICS

- AKA major ‘tranquilisers’, ‘neuroleptics’
- Mediate effects through DOPAMINE pathways
- Primarily used in schizophrenia/ Bipolar disorder



ANTI-PSYCHOTICS AND DEMENTIA: INDICATIONS

- Severe behavioural disturbance eg physical aggression- risk to self and others
- Psychotic symptoms eg visual/auditory hallucinations- BUT these symptoms are not always distressing.
- Mania-can occur as part of dementia

ANTI-PSYCHOTIC MEDICATION: GROUPS

- ‘Typical’ anti-psychotics; ‘First generation’ eg haloperidol, chlorpromazine
- ‘Atypical’; ‘second generation’ eg Olanzapine, risperidone, Quetiapine
- Differentiated on basis of side effect, ‘atypicals’ believed to cause less extra-pyramidal side effects

ANTI-PSYCHOTICS AND DEMENTIA:
MAJOR ADVERSE EVENTS

- Parkinsonism
- Gait disturbance
- Sedation
- QT prolongation
- Oedema
- Accelerated cognitive decline
- Stroke (> 2 fold)
- Other thrombo-embolic events
- ⇧ mortality (1.7 fold)-pooled analysis of 17 RCTS by FDA, 2005

ANTI-PSYCHOTICS AND DEMENTIA
MORTALITY

- A number of studies looking at atypical versus conventional anti-psychotics, mostly retrospective
- Very little difference overall between the two
- Both associated with ⇧ Mortality, ⇧stroke
- Risk of mortality appears to stay over long period, risk CVAE highest in first 2-3 months
- No clear single cause of death

ANTI-PSYCHOTICS AND DEMENTIA

GOOD PRACTICE

- NOT be a first-line treatment except unless high risk of harm, danger to self/othersl high levels of distress
- When medication is indicated, atypical antipsychotic preferable to typical one.
- Lowest possible effective dose, for the shortest possible time, ideally less than 12 weeks.
- Once initiated, review regularly (at least monthly); consider reducing or stopping at each review
- Involve patient/family/carer/advocate in decision making.
- Advice on positive and negative effects of the medication
- Ultimately the decision will be a ‘best interests’ decision.

BENZODIAZEPINES

- Enhance transmission of GABA
- Used for anxiety, insomnia, muscle relaxation, seizure disorders
- Should be used on short-term basis only BUT some patients on for MANY years

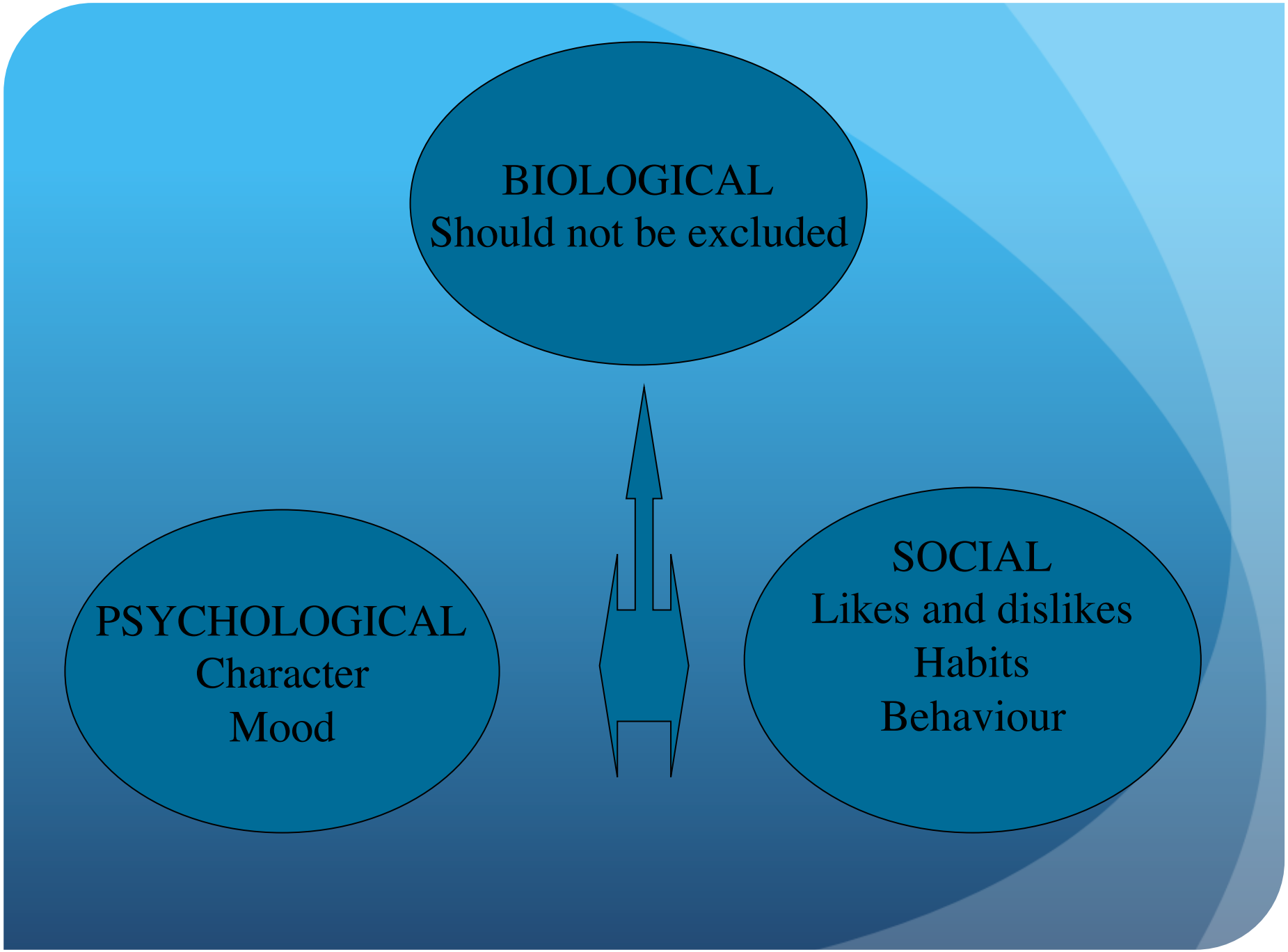
BENZODIAZEPINES: SIDE EFFECTS

- Can cause ‘paradoxical reaction’ ie agitation, insomnia, irritability-approx 10% in elderly
- Tolerance and Dependence: physical and psychological
- Falls
- Worsening of cogntive function
- Withdrawal syndrome
- REMEMBER: stop suddenly risks seizures, delirium, agitation, self-harming behaviours

NON-PHARMACOLOGICAL MANAGEMENT OF BPSD

- BPSD=behavioural and psychological symptoms of dementia
- Commonest reason for prescribing meds
- Any of previously mentioned meds may be prescribed, depending on symptoms but meds not the only answer…

……..bio-pscyho-social model


BIOLOGICAL
Should not be excluded
PSYCHOLOGICAL
Character
Mood
SOCIAL
Likes and dislikes
Habits
Behaviour

PSYCHOSOCIAL MODEL

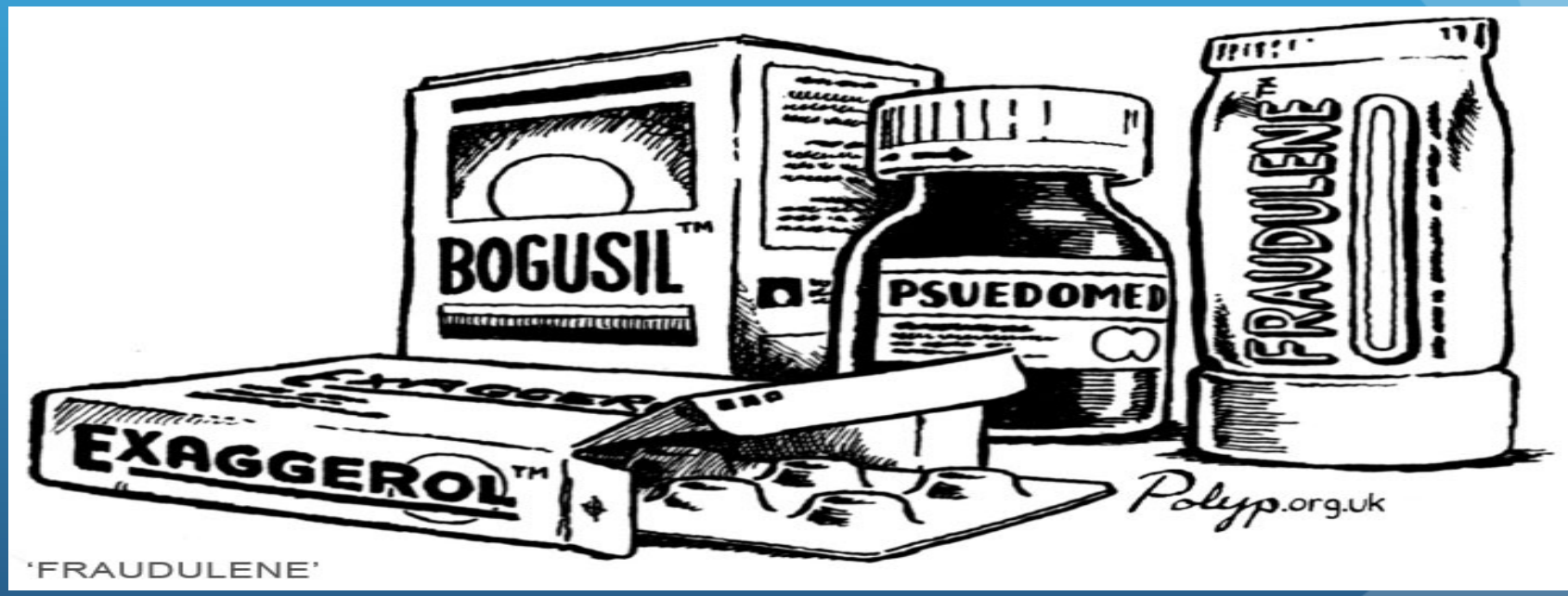
- Information gathering about patient.
- Awarenesss of idiosyncracies of each individual
- Approach is case-specific and multi-facetted-'one size' does not fit all.
- Not exclusive of need for pharmacology.
- 'PERSON-CENTRED CARE'

ALWAYS REMEMBER……..

- ‘Start low, go slow…….’

NEVER FORGET……

- Treatment is about more than just tablets…..



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