CHANGING LIVES

Falls and Frailty

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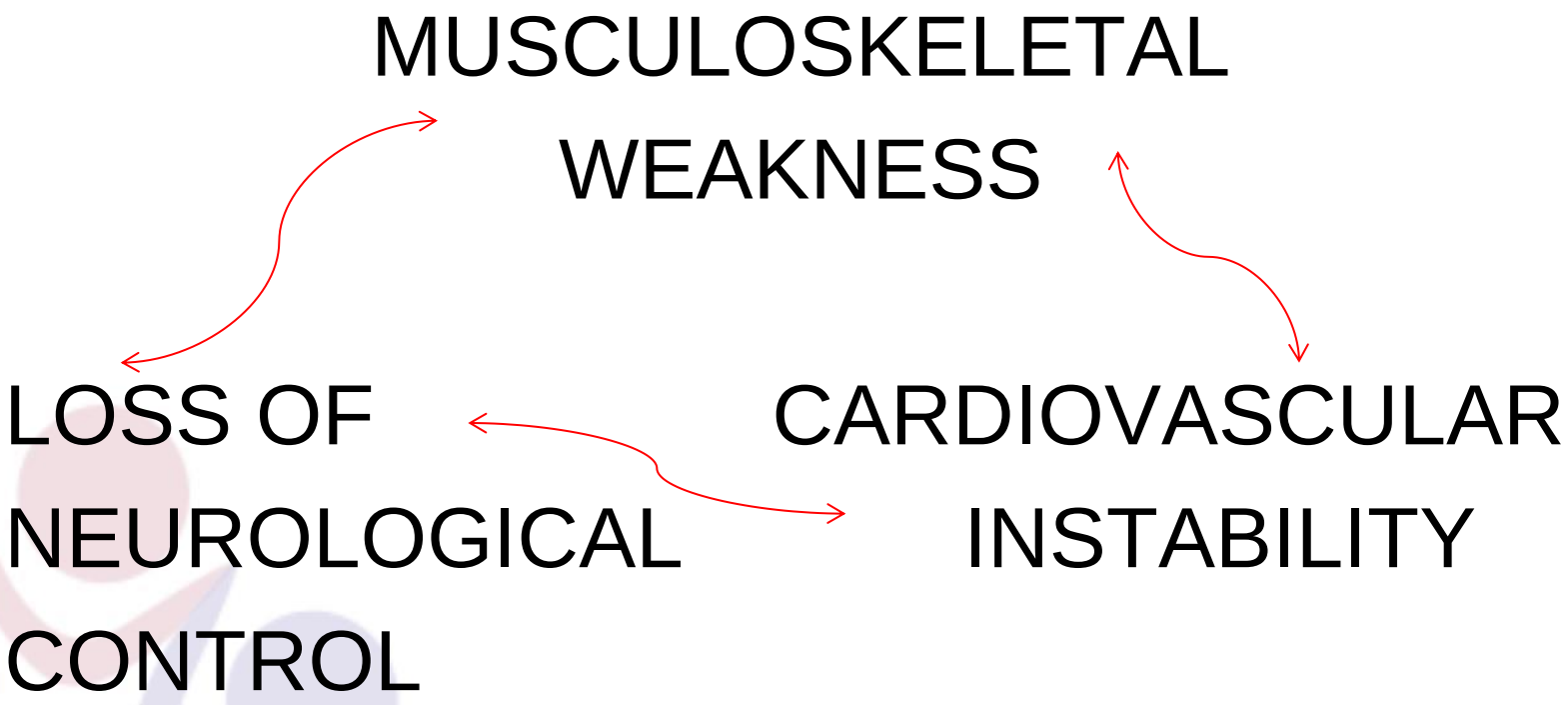
Preface

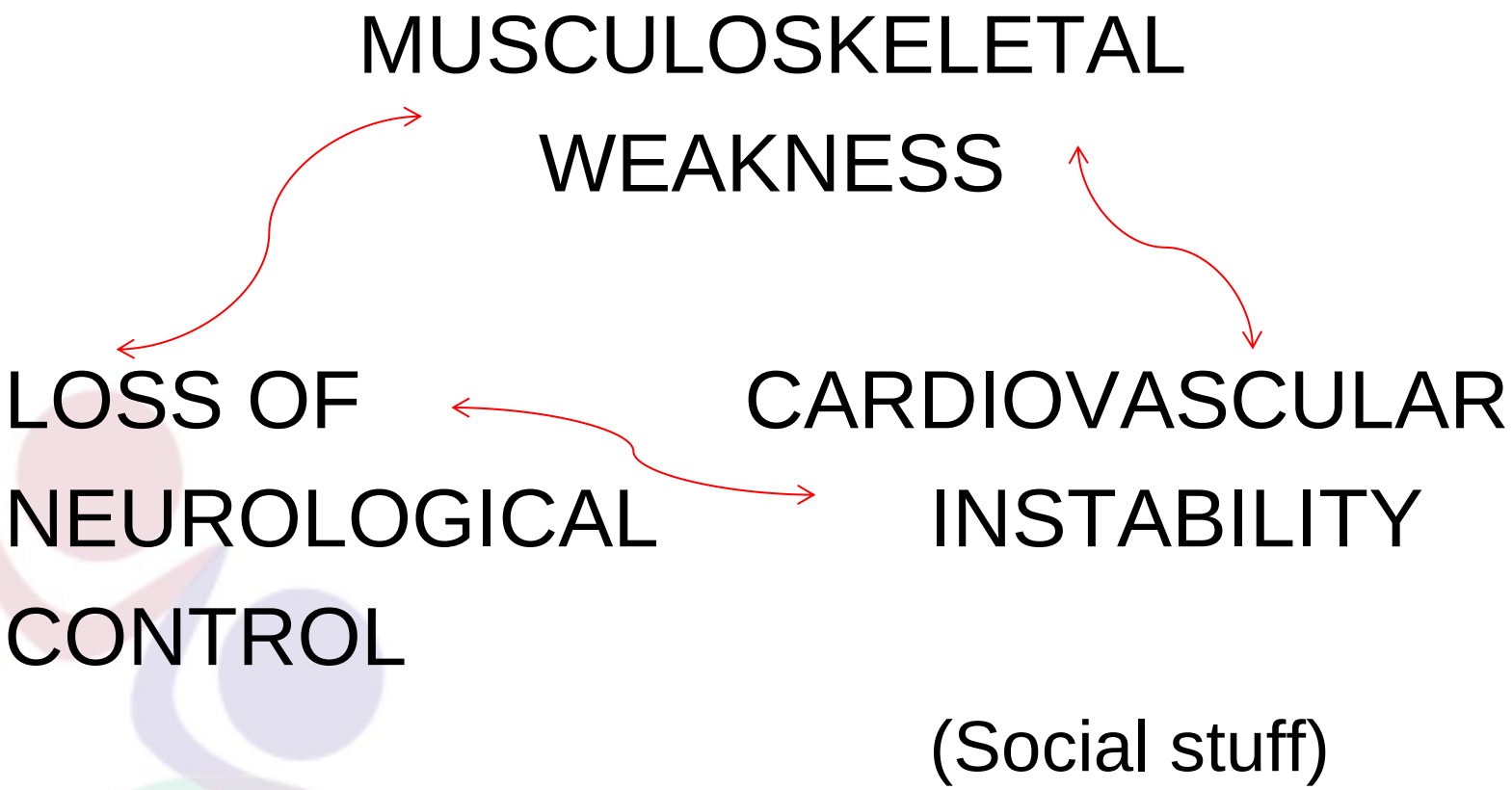
- “Falls generally result from an interaction of multiple and diverse risk factors and situations, many of which can be corrected”

- J Am Ger Soc 49:664-672,2001.

Factors


MUSCULOSKELETAL WEAKNESS
LOSS OF NEUROLOGICAL CONTROL
CARDIOVASCULAR INSTABILITY

Factors



(Social stuff)

Case 1 Mr EH

- 93 yr old male Residential Home resident
- Admitted via A+E
- PC
- Fall
- Back pain
- Unable to Wt bear

Case 1

- HPC
- “Patient slipped and had injured his back , not been able to weight bear since”
- PMH “None”
- PSH Cholecystectomy, Hip Replacement
- DH “On Warfarin for AF”

Case 1

- O/E
- Conscious and oriented
- BP 160/80 Pulse 90/min Irreg irreg
- RR 18/min Sats 96%
- RS/CVS Normal
- Local Exam: “Some Tenderness over lower spine

Case 1

- XR's Confirm Crush Fractures at T12 and L2
- Plan
- Analgesia and Mobilise

Case 1

- What else do you want to know?

Case 1

- Another look at his Past Medical History! esp wrt Falls, Cardiovascular Disease, Mentation.
- An account of his functional level: mobility, ADL's.
- Cognitive Testing
- Neurological Examination
- CXR and ECG.

Case 1

- Further Information readily available
- AMT 4/10 (20-1 x)
- Slow in thought and speech (Bradyphrenia)
- Bilateral Palmar Mental Reflexes
- ECG AF, partial RBBB (S1,Q3,T3)
- CXR Collapse/consolidation Rt middle/lower lobe, fluid in the fissure, upper lobe diversion

Case 1

- Low normal Corrected Ca level
- Low normal Phoshate
- Raised Alkaline Phosphatase
- Further Information after some research
- CVA 2000 Severe PVD
- Previous fractured femur and Rt THR
- “Dementia” MMSE now 12/30

Case 1

- 93 male Residential Home Resident
- Stroke and marked cognitive impairment
- Atrial Fibrillation + Heart Failure
- PVD
- Osteoporosis (?osteomalacia)
- Pneumonia

Case 1

- Why has he fallen and fractured?

Case 1

- Dementia
- Stroke
- Pneumonia
- Possibly arrhythmia
- Poor bone strength
- At present no idea of his postural cardiovascular reflexes

Case 2 Mr EB

- 86 yr old male recently moved in with daughter
- PC Falls and pain Rt hip region
- Incontinence of Urine
- Nocturnal agitation
- PMH Parkinson's Disease, Cataract operation Rt eye

Case 2

- DH - Aspirin 75 mg od
- Cocareldopa 12.5/50 tds
- Lactulose/Bisacodyl/Senna
- Quetiapine 25mg nocte
- SH - Lived with daughter, mobilises with stick (Won't use frame!!)
- Carer helps with ADL's esp cutting food

Case 2

- O/E
- Obvious Parkinsonism, fairly severe.
- Mild Lt facial droop
- Lt upgoing plantar

Case 2

- What else do you want to know?

Case 2

- Duration of Parkinson's Disease
- How long falls and agitation, is there an association with medication?
- Any associated hallucinosis esp visual?
- Postural Bp measurements
- Other autonomic manifestations, how long and how severe

Case 3

- 78 year old woman
- Residential home resident
- PMH :-
- Depression
- Anxiety
- Mild early cognitive impairment (awaiting memory clinic first attendance)
- Hypothyroidism (treated)
- Hypertension (treated)

Case 3

- Recent admission with falls diagnosed with postural hypotension
- Bendrofluazide stopped
- Venlafaxine halved
- Physio assessment, advised mobilising using walking stick (patient refused “I’m not looking like an old woman!”)
- DH – Venflaxine 75mg nocte, Zopiclone 3.75mg nocte, Thyroxine 125mcg od

Case 3

- Presenting complaint : -
- Fall, groin pain, unable to mobilise
- On examination : -
- Left leg shortened and externally rotated
- Left calf swollen, erythematous and pitting
- Respiratory rate 24/min
- Heart rate 102 regular
- O^2 sats 94% ORA

Case 3

- What else do we need to know?

Case 3

- Examination of the cardiorespiratory system
- Chest xray,
- ECG,
- Doppler scan of the swollen calf
- Pelvic xray

Case 3

- Results :-
- Chest examination difficult due to pain in the left hip
- Chest xray – left basal shadowing
- Pelvic xray - intertrochanteric fracture left neck of femur
- ECG – normal sinus rhythm
- Doppler scan - inconclusive
- TFT's – TSH <0.01

Case 3

- Why has she fallen and fractured her hip

Case 3

- Factors:-
- Left lower lobe pneumonia
- Possible venous thromboembolism
- ? Ongoing postural hypotension
- Drugs – sedative medications
- Refusing to use walking aids
- Overtreated hypothyroidism
- Depression

Case 3

- Further events :-
- Sudden O^2 desaturation to 88% ORA
- Not fit enough for surgery
- Repeat chest xray unchanged
- Treated with intravenous antibiotics and intravenous unfractionated Heparin
- VQ scan planned however patient deteriorated rapidly and treatment was changed to palliation only on the End of Life pathway

Summary

- Three cases
- All with complex multiple medical pathology, some fatal
- Some associated individual risk factors (eg ‘Won’t use frame’)
- Sedative drugs a major contributing factor
- Mental /neurological illness very important

Summary

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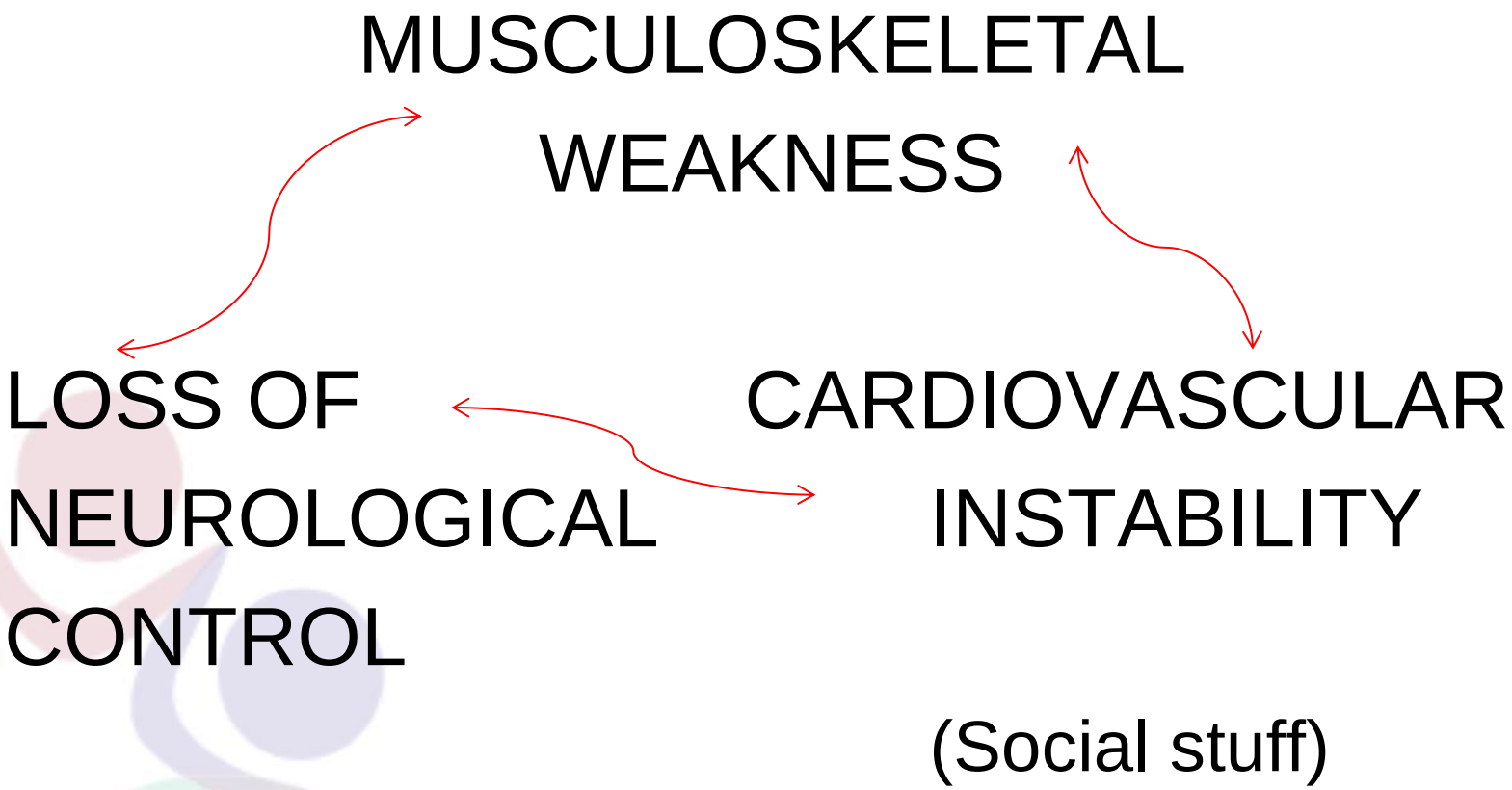

(Social stuff)

Falls Service Criteria

- Falls associated with

(i) frailty, fracture or head injury

(ii) Functional decline

(iii) Cognitive decline or impairment

(iv) Continence problems

Falls Service Criteria

- Exclusions

(i) Syncope – see Syncope or Cardiology

(ii) Blackouts – see Syncope or Neurology

(iii) Vertigo – see ENT

(iv) Movement disorders & Parkinson's – see Neurology or Parkinson's clinic

Falls Service Criteria

- Referrals to include

(i) Up to date contact details

(ii) Reason for referral

(iii) Relevant PMH

(iv) List of current medication

(v) Lying and standing blood pressure