FRACTURE & CONTRACTURE CARE GUIDE

Approximately 30 – 45% of older adults fall annually. The incidence and severity of falls rises with age (American Geriatrics Society (2010). The peak age for falls in residential aged care facilities is 85 – 89 years.

General risk factors that should be reviewed:

- People with significant cognitive impairment
- Osteoporosis
- Low BMI see pg 26
- History of falls
- Cardiac disease history
- History of Parkinson’s or other motor sensory deficit
- High risk medications e.g. anti-convulsants, opioids, antiarrhythmics, sedatives
- Smoking
- Sensory deficits e.g. visual, auditory
- Previous history of fracture
- Decreased mobility
- Environmental hazards e.g. loose rugs, lack of grab rails, unsteady furniture

Action strategies:

- Lifestyle advice e.g. activity, diet, calcium rich foods, limit alcohol intake
- Sunlight or supplemental Vitamin D, (Vitamin D supplementation recommended for all mobile adults unless contraindicated.)
- Undertake vision, hearing testing
- Neurological/cardiovascular assessments
- Cognitive assessments
- Medication review
- Consider a biphosphonate for all people with history of fractures and calcium supplement if no cardiac risk
- Falls assessment for all age/gender groups (physio assessments)
- Consider hip protectors/appropriate footwear
- Prevent dehydration
- Toileting regime
- Environmental assessment – repair cracks in concrete, install hand rails, remove clutter, adequate lighting etc

Common Risk Factors for Fractures and Contractures

<table>
<thead>
<tr>
<th>Cognitive</th>
<th>Cardiovascular/Renal</th>
<th>Respiratory</th>
<th>Musculoskeletal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Depression</td>
<td>Low BP / High BP</td>
<td>SOB</td>
<td>Reduced muscle tone</td>
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<tr>
<td>Delirium</td>
<td>Orthostatic hypotension (stand at least 3 minutes prior to taking BP)</td>
<td>Chest infection</td>
<td>Decreased muscle strength</td>
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<tr>
<td>Dementia</td>
<td>Dehydration</td>
<td>Reduced chest expansion &amp; decreased oxygen levels</td>
<td>Reduced bone density</td>
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<tr>
<td>Dehydration</td>
<td>Electrolyte imbalance</td>
<td>Curvature of spine</td>
<td>Thinning subcutaneous tissues</td>
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<tr>
<td>Drug reaction/medication issues</td>
<td>Endocrine disorder</td>
<td>Calcification of thoracic region</td>
<td>Loss of balance</td>
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<tr>
<td>Hallucinations/Delusions</td>
<td>Infection/UTI’s</td>
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<td>Agitation</td>
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<td>Disorientation</td>
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ACUTE FRACTURE / CONTRACTURE MANAGEMENT

Acute Fracture Presentations:
- Haematoma/oedema
- Acute pain
- Decreased range of movement
- Decreased circulation
- Nerve injury
- Deformity of limb, shortness, rotation

Contracture Presentations:
- Reduced strength
- Reduced bone density
- Thinning of subcutaneous tissues
- Increased risk of pressure sore/ulceration development
- Increased skin moisture within contracted area

Is patient stable and able to be reviewed locally?

ACTION PLAN
- Immobilisation of site
- Maintenance of functional activities after immobilisation e.g. movement of fingers/toes
- Monitor swelling, neurovascular observations
- Minimisation of pain at the fracture site during and after immobilisation
- Treat shock
- Adequate analgesia
- Providing a calm and secure environment for the patient

Go to hospital (call 111 for ambulance)

CONTACT GP

ACTION PLAN
- Referral to physiotherapist for functional assessment EARLY for prevention and management of early contracture
- Multi-disciplinary team coordination for on-going management of contracture – keeping skin dry & intact, comfort, pain control and handling techniques
- Advice on daily activities of living & promotion of independence
- Provision of individualised exercise regime for muscle strength, endurance and balance programme
- Increase dietary intake to include high energy patient diet
- Consider referral to Occupational Therapy for pressure care aids (e.g. pressure care cushion and mattresses)