



Best Practice Updates MOBILITY

Presentation by:

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Outline

- What is Mobility
- Recent updates to Best Practice Guidelines/Recommendations
- Benefits/Risks of Early Mobility
- Positioning of Patients Post Stroke
- Transfers
- Contraindications for Early Mobility
- Key Principles

Mobilization

Definition:

“the process of getting a patient to move in the bed, sit up, stand, and eventually walk”¹

Best Practice

Recommendations¹

- All patients admitted to hospital with acute stroke should be assessed by rehabilitation professionals, ideally within the first 48 hrs of admission
- Frequent, out of bed activity in the very early time frame (within 24 hours of stroke onset) is not recommended -AVERT trial
 - Mobilization may be reasonable for some patients with acute stroke in the very early time frame and clinical judgement should be used
- All patients admitted to hospital with acute stroke should start to be mobilized early (between 24 and 48 hours of stroke onset) if there are no contraindications

Early Mobility^{2,4,5}

BENEFITS

- Regain/Improve function
- Prevent DVT
- Skin Integrity
- Maintain bowel/bladder function
- Preventing bone loss
- Preventing contractures
- Decreasing pain
- Reducing Edema
- Promoting neuroplasticity and stimulation
- Helps with maintaining nutrition and hydration
- Psychological Benefits

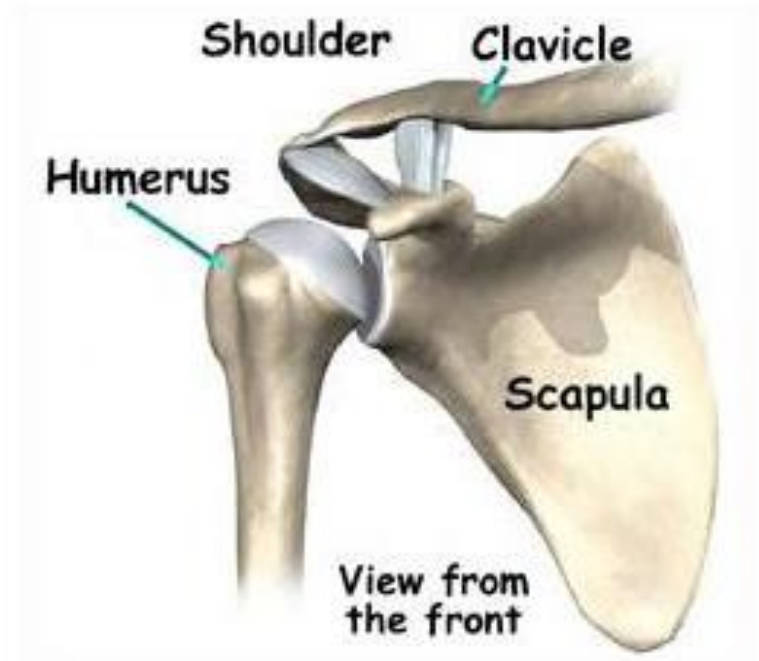
RISKS

- Increases risk of falling
- Damage to the ischemic penumbra associated with reduced cerebral blood flow
- Increased blood pressure associated with activity
- Increased pain – if done improperly

Importance of Positioning

Shoulder Joint

- Large ROM
- GH joint and shoulder girdle (scapula/clavicle) work together to produce movement
- Shoulder girdle is supported entirely by soft tissues (primarily muscle)



The shoulder joint



Importance of Positioning

Neglect/ Loss of Awareness

- Increases risk of injury

Injury/Complications occur if arm, hand or leg are left in a position where

- Circulation is compromised
- Tissues are put on prolonged stretch
- Skin can be burned, caught between objects

Positioning

Seated

- Support the arm on arm tray (in w/c)
- Ensure proper seating
 - Coordinate with Occupational Therapist
- Elevate hand to reduce edema
- Padding under elbow, hand resting in neutral



Positioning

Supine

- Maintain head in neutral alignment
- Head of Bed Elevated >30 deg
- Support the arm with pillow
- Affected leg should be level with unaffected leg
- Prevent skin breakdown of heels
 - Spenco boots
 - Legs Elevated on pillows



Caution: Ensure that pillows or towels are not cutting off circulation or increasing pressure on the skin. Ensure that there are no wrinkles in the sheets, in order to prevent skin breakdown.

Image from Southwestern Ontario Stroke Network and London Health Sciences Centre, 2012

Positioning

Side Lying

- Maintain head in neutral alignment
 - (support with pillows – under neck not under shoulder)
- Do not have patient lying directly on affected shoulder
- Support the arm with pillow
- Both legs should be bent, support with pillow between knees
- Support trunk with pillow behind back



Image from Southwestern Ontario Stroke Network and London Health Sciences Centre, 2012

Positioning

To avoid injury

- Ensure the shoulder is supported
- Avoid raising arm >90 deg
- When lying on side – do not lie patient directly on affected shoulder (gently bring sh. blade forward)
- Elevate hand/arm to reduce edema
- Re-position at least every 2 hours

PREVENTION IS KEY³

Prevent tissue damage
Prevent pain
Maintain good joint
alignment and muscle length
equipment



Good handling
Good Positioning
Use of appropriate
aids and

Transfers

Considerations before Mobilizing

- Can the patient follow direction?
- Can they participate in bed mobility?
- Do they have sitting balance?
- Do they have use of 1 or both upper extremities?
- Do they have anti-gravity strength in 1 or both legs?

Tree 1
Sitting:
Unable to Physically Assist in Maintaining Sitting Balance

Assist:
 -Unable to follow commands

Mechanical Lift

Tree 2
Sitting:
Requires hand/leg steady to maintain sitting position on edge of bed

-Extends 1 knee fully
 -Foot can be positioned "low under knee"
 -Uses 1 arm to assist in transfer

2 person assist full stand transfer

-Extends 1 knee approx 45° short of straight
 -Foot can be positioned "low under knee"
 -Uses 1 arm to assist in transfer

2 person assist crouch transfer

-Unable to use legs but able to use both arms in transfer

2 person assist transfer board

-Any other/less combination of arm/leg movements

Mechanical lift

Tree 3
Sitting:
Able to maintain sitting position on edge of bed but requires supervision for safety

-Extends 1 knee fully
 -Foot can be positioned "low under knee"
 -Uses 1 arm to assist in transfer

1 person assist full stand transfer

-Extends 1 knee approx 45° short of straight
 -Foot can be positioned "low under knee"
 -Uses 1 arm to assist in transfer

1 person assist crouch transfer

-Unable to use legs but able to use both arms in transfer

1 person assist transfer board

-Any other/less combination of arm/leg movements

Assess for more dependent transfer - 2 person or mechanical lift

Transfers

Tree 1

Sitting:

Unable to Physically Assist in Maintaining Sitting Balance

And/or

- Unable to follow commands



Mechanical Lift

Transfers

Tree 2

Sitting:

Requires hands-on steadying to maintain sitting position on edge of bed

- Extends 1 knee fully
- Foot can be positioned “toes under knee”
- Uses 1 arm to assist in transfer

2 person assist full stand transfer

- Extends 1 knee approx 45° short of straight
- Foot can be positioned “toes under knee”
- Uses 1 arm to assist in transfer

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Mechanical lift

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Assess for more dependent transfer - 2 person or mechanical lift

Transfers

Other considerations for **safe** transfers:

- Dizziness
- Pain
- Footwear
- Preparation of the room
- Staff Body Mechanics
- Direction of transfer (unaffected vs affected side)
- Activity Tolerance
- Use of aids:
 - Transfer Belt
 - Shoulder Sling
 - Gait Aid
 - Draw sheet



Contraindications to Early Mobilization¹

- Patients who have had an arterial puncture for an interventional procedure
- Unstable medical conditions
- Low oxygen saturation
- Lower Limb Fracture of Injury
- Decreased level of consciousness and awareness

Key Principles to Remember

- Goal of Mobilization: promote independence of movement in a safe manner and maximizing recovery
- Use a personalized approach
- Work together as an inter-professional team to promote consistency



THANK YOU

References

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