



JSS College of Physiotherapy
Department of Cardiopulmonary Physiotherapy

Clinical Reasoning -Amputation

Components	Clinical relevance/ reasoning	Important Information
Name	To identify the person	
Age	Functional recovery/ strength and mobility	
Occupation	To understand the predisposing factors that aggravates the problem To plan and teach the specific exercise based on the occupation	
Chief complaints	List the reported symptoms (Pain, mobility ADLs ,etc)	Relate with surgery Identify Flags
Surgical History and co morbidities	Reason for surgery/ amputation Surgical history-Incision/site /level of amputation Relevant medical conditions	Trauma/ PVD/ DM/ Infection/ Cancer/ Other DM/HTN/Previous trauma

	Relevant past history(Functional and activity status)	Previous functional status/activity status
Observation	<p>General-Whole body appearance</p> <p>Local-Incision, swelling</p> <p>-Chest assessment</p> <p>Position of limb/ attitude of the limb</p> <p>Posture</p> <p>Presence of any drain</p> <p>Gait</p>	<p>General health condition</p> <p>Healing of the wound(stages of inflammation, remodeling</p> <p>Identifies muscle imbalance/functional limitation</p> <p>Any deformities present(FFD)</p> <p>Any deviations(Scoliosis, kyphosis)</p> <p>To understand healing mechanism, stage of inflammation</p>
Examination	a)Pain-stump (identify FLAGS, relate to surgical history, tissue healing, medication)	Type, intensity, duration and frequency

	<p>b) Stump condition (identify swelling, inflammation, sensitivity)</p> <p>-</p> <p>c)AROM(Specific to the segment)</p> <p>d)PROM(Specific to the segment ,including accessory movements)</p> <p>e)Muscle strength(MMT)- Observe the activity of muscle</p> <p>f)Balance-relate with factors like ageing, muscle strength, proprioceptor activation.</p> <p>g)Functional movement analysis(relate with normal pattern, identify the possible structure)</p>	<p>To understand the condition of stump and its healing process .</p> <p>Movement pattern, quantity, muscle activity, kinematics, protective mechanism</p> <p>Assess the quantity, end feel, muscle length</p>
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	<p>h) Phantom sensation/feeling towards amputation-(pain in the missing part of the limb)</p> <p>i) Gait analysis</p> <p>j) Other relevant information</p> <p>k) Diagram of stump/Stump measurement-limb edema(Identify the possible cause)</p> <p>l) ROM-identify the joint structural and functional limitation(Upper Limbs Lower Limbs)</p> <p>m) FUNCTION (with/without prosthesis, including any aids)-level of independence</p>	<p>To understand the missing nerve signals and the perception of pain due to amputation.</p> <p>To understand the kinematic/temporal/spatial parameters.</p> <p>Functional / gait status-level of independence</p> <p>Tests for effusion/clinical reasoning</p> <p>Total assistance/max/mod/min assist/independent movement pattern.</p>
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Treatment

Plan of treatment	Reasoning	Important information
Gain confidence	Good rapo, Exercise education	
To reduce pain -Cryotherapy -positioning -Muscle activation -Supportive devices/brace(tpo avoid tightness/contracture) -Modalities	-reduces inflammation -Muscle relaxation -Muscle guarding -TENS ,cold packs	VAS is used to asses pain
To reduce Oedema -Compression bandage -Elevation -Mobilization of soft tissues -Active exercises -Modalities	-mobilizes exudates -Improves circulation -Electrical stimulation	
To restore ROM -Active exercise -Stretching of tight	-identify range and endfeel -Identify active structure	-Improves performance

muscles	limiting the range -Functional movements	
To improve respiratory symptoms -Cough: Coughing techniques -breathlessness: Dyspnea relieving position -reduce air entry-lung expansion exercises	-identify the problems and facilitates the recovery	-Improvement in the functional performance
Stump care - stretching(tightness/contracture prevention -Swelling -Phantom pain(Pain must decrease gradually- desensitization therapy	-Soft tissue mobilization -active exercise with elevation -Muscle imbalance(stretch in one group of muscles and tightness in other group of muscles)	-improves functional ability
Functional Independence -Independence in ADL activity -Gait training	-improvement in the functional limitation -Weight bearing / progress to	- Improves quality of life

/ambulation using assistive devices(Walker/crutch/prosthesis)	normal gait without assistive devices/gait obstacles	
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Progress Note

Treatment program	Day 1-3	Day 4-discharge	Progress
1.Pain	<ul style="list-style-type: none"> - Cryotherapy -positioning -Supportive devices/brace(to avoid tightness/contracture) -Modalities 	<ul style="list-style-type: none"> - Muscle activation -Modalities(tens) 	-Use of assistive device
2. Oedema	<ul style="list-style-type: none"> - Compression bandage -Elevation 	<ul style="list-style-type: none"> - Mobilization of soft tissues -Active exercises -Modalities 	-Education on importance of physiotherapy.
3. ROM	<ul style="list-style-type: none"> - Active exercise -Stretching of tight muscles 	-Muscle activation	- Education on importance of physiotherapy

4. Respiratory symptoms	<ul style="list-style-type: none"> -Cough: Coughing techniques -breathlessness: Dyspnea relieving position -reduce air entry:lung expansion exercises 	<ul style="list-style-type: none"> -Brochial hygiene techniques like ACBT,AD -Diaphragmatic resisted exercise 	
5. Stump care	<ul style="list-style-type: none"> -Positioning/brace -Active exercises -stretching exercises (tightness/contracture prevention -Swelling(Soft tissue mobilization) -Phantom pain(Pain must decrease gradually-desensitization therapy 	<ul style="list-style-type: none"> -Progression of stretching and ST mobilization 	
6. Functional Independence	<ul style="list-style-type: none"> Independence in ADL activity -Gait training /ambulation using assistivedevices(Walker/crutch/prosthesis) 	<ul style="list-style-type: none"> -Increase distance incrementally -Attain normal kinematics and weight bearing -Temporal and spatial parameters of gait normalization and training 	<ul style="list-style-type: none"> -Normal gait without assistive device -Attaining independence in basic and functional activities

Precautions and Discharge Summary	
Precautions	Insicion pain -Mobilization and stretching with minimal force -Avoid rapid force during gait and functional movement
Advice (Dos & Donts)	Dos: Adhere to exercises Take precautions and preventive measures Donts: Avoid vigorous sttetching Avoid lifting more weight
Home Program	HEP based on patient goals with precautions -HEP goals with dos and donts
Follow up	Along with the consultant visit