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SELF-ASSESSMENT GUIDE

Qualification	ASSISTIVE REHABILITATION TECHNOLOGY SERVICES (ORTHOTICS) NC II		
Units of Competency Covered	<ul style="list-style-type: none"> • Create a positive mold from a negative cast • Fabricate a foot orthosis • Fabricate an ankle-foot orthosis • Fabricate a knee-ankle-foot orthosis • Fabricate a wrist-hand orthosis • Fabricate a customized plastic thoraco-lumbo-sacral orthosis • Perform basic repair and/or replacement of the orthotic devices 		
Instruction: Read each question and check the appropriate column to indicate your answer.			
Can I?	YES	NO	
CREATE A POSITIVE MOLD FROM A NEGATIVE CAST			
• Verify and record prescription (specifications of device) in accordance with documentation procedures *			
• Prepare negative cast according to standard procedures *			
• Mix water and plaster of Paris powder according to prescribed ratio			
• Pour plaster mix to the negative cast while observing correct mandrel alignment *			
• Mount positive cast in bench vise *			
• Strip negative cast from positive mold, following standard procedures *			
• Re-establish positive cast marking and alignment, following standard procedures *			
• Clean work area and tools; store tools and positive cast on allotted shelves			
• Practice safety precautions in performing tasks in accordance with OSH standards *			
FABRICATE A TYPE OF ORTHOTIC DEVICE (foot, ankle-foot, knee-ankle-foot, wrist-hand, customized plastic thoraco-lumbo-sacral orthosis)			
A. Preparations for thermoforming			
• Verify and record prescriptions (specifications) on types of orthotic device, in accordance with documentation procedures *			
• Identify tools and supplies to be requested based on prescriptions/specifications on types of orthotic device for fabrication*			
• Check availability of tools and supplies/materials			
• Check safety and functionality of equipment and vacuum suction following the required pressure (pounds per square inch), following industry procedures *			

<ul style="list-style-type: none"> • Prepare thermoforming plastics and foam materials, according to prescribed dimensions of an orthotic device for fabrication 		
<ul style="list-style-type: none"> • Prepare positive cast for thermoforming procedure by checking if the orthotic device is free of bumps and sharp edges, in accordance with standard procedure * 		
<ul style="list-style-type: none"> • Secure position of positive cast in the vacuum pipe in accordance with thermoforming preparation procedure 		
B. Thermoforming		
<ul style="list-style-type: none"> • Prepare oven and materials for cooking the thermoform soft liner into the orthosis positive mold 		
<ul style="list-style-type: none"> • Cook soft liner materials of an foot orthosis for fabrication, according to prescribed time and temperature and following standard procedure 		
<ul style="list-style-type: none"> • Mold cooked liner of a foot orthosis for fabrication, to follow positive cast shape, through use of bandage or vacuum form 		
<ul style="list-style-type: none"> • Cook thermoform plastic of an orthosis for fabrication, according to prescribed time and temperature and following standard procedure 		
<ul style="list-style-type: none"> • Mold cooked thermoform plastic of an orthosis for fabrication, to follow positive cast shape, through use of vacuum form 		
C. Metal/Side Bar Bending for knee-ankle-foot orthosis		
<ul style="list-style-type: none"> • Determine the orthotic knee joint upright clearance from the knee-ankle-foot orthotic shell according to prescribed knee joint clearance 		
<ul style="list-style-type: none"> • Align the orthotic knee joint upright parallel to each other in all planes following the prescribed alignment 		
<ul style="list-style-type: none"> • Perform anterior/posterior metal bending of orthotic knee joint according to standard procedure 		
<ul style="list-style-type: none"> • Perform metal bending of orthotic knee joint upright following the shape of orthotic shell, according to standard procedure 		
<ul style="list-style-type: none"> • Attach the orthotic upright knee joint to the orthotic shell following the prescription and standard procedure 		
D. Trimming and smoothing hard and plastic components		
<ul style="list-style-type: none"> • Operate cutting and grinding tool and equipment safely, following manufacturer's manual * 		
<ul style="list-style-type: none"> • Cut hard and plastic components of an orthosis, according to prescribed trim lines* 		
<ul style="list-style-type: none"> • Remove the plaster inside the shell, following standard procedure 		
<ul style="list-style-type: none"> • Grind and smoothen sockets of an orthosis, according to prescribed trimlines * 		
<ul style="list-style-type: none"> • Create straps according to patient measurements * 		
E. Post-fabrication Activities		
<ul style="list-style-type: none"> • Label fabricated orthosis, following device safe procedure 		
<ul style="list-style-type: none"> • Store fabricated orthosis, in safe and secure environment * 		

PERFORM BASIC REPAIR AND/OR REPLACEMENT OF THE ORTHOTIC DEVICES		
• Verify orthotic device's condition if it needs repair, replacement or referral to orthotist		
• Record orthotic device for repair, replacement following established documentation procedure *		
• Identify tools, supplies and materials needed for repair or replacement based on latest prescription		
• Check availability of tools and supplies/materials		
• Prepare tools and materials in the workshop		
• Perform repairs or replacement of orthotic device according to standard procedure and prescription *		
• Check safety and functionality of orthotic device following industry procedures *		
• Solicit feedback from patient		
• Identify information that needs to be recorded for orthotic device following established documentation procedure		
PERFORM GOOD HOUSEKEEPING (CLEANS TOOLS AND WORK AREA) AND TURNS OFF MACHINES USED IN FABRICATION		
PRACTICE SAFETY AND HEALTH PRECAUTIONS IN PERFORMING ALL TASKS IN ACCORDANCE WITH OCCUPATIONAL SAFETY AND HEALTH (OSH) STANDARDS *		
I agree to undertake assessment with the knowledge that information gathered will only be used for professional development purposes and can only be accessed by concerned assessment personnel and my manager/supervisor.		
Candidate's Name and Signature	Date	

*NOTE: *Critical aspects of competency*