

Supplementary File SA. Classification of Nursing Activities

CLASSIFICATION	DESCRIPTION
DIRECT CARE	Nursing activities performed in the presence of the patient and involving direct interaction between the nurse and the patient.
INDIRECT CARE	Patient-oriented nursing activities performed in the patient's absence and not requiring direct nurse-patient contact.
ORGANISATIONAL ACTIVITIES	Nursing activities aimed at ensuring the appropriate delivery of direct and indirect care interventions. Although essential to the organisation and effectiveness of care, they do not involve direct nurse-patient contact.
NON-PATIENT CARE TIME	Activities not strictly related to nursing care, intended for the physical and mental well-being of the healthcare worker, and non-productive periods that do not provide a direct benefit to either the nurse or the patient.

QUESTIONNAIRE Grouping nursing activities	ITEM Nursing activities	CLASSIFICATION
VITAL SIGNS	Blood pressure (BP) Heart rate (HR) Capillary blood glucose (Dtx/HGB) Body temperature SpO2 Respiratory rate (RR) Pain Central venous pressure (CVP) Monitor: A - placement/removal/battery replacement; B - reading/assessment of parameters	DIRECT CARE
SWAB COLLECTION	Swab collection (oral, nasal, rectal, vaginal, wound)	DIRECT CARE
MEDICATION ADMINISTRATION	Oral Intravenous: A - intermittent/short infusion; B - continuous infusion; C - monitoring; D - removal/discontinuation Enteral: A - placement/initiation; B - replenishment; C - monitoring; D - removal/discontinuation Subcutaneous Inhaled/O2 therapy Intramuscular A - ocular; B - transdermal; C - other A - assessment; B - communication	DIRECT CARE
CIRCULATORY SYSTEM	Electrocardiogram Venous blood sampling (preparation + performance) Blood sampling from a central line/arterial line Peripheral intravenous catheter (PIVC) insertion PIVC: A - removal; B - dressing; C - flushing; D - assessment A - PICC dressing; B - CVC dressing A - PICC flushing; B - CVC flushing A - PICC removal; B - CVC removal A - PICC assessment; B - CVC assessment Blood transfusion (entire process, excluding blood sampling) Communication Assessment	DIRECT CARE
RESPIRATORY SYSTEM	Simple airway suctioning Tracheostomy suctioning Tracheostomy dressing Sputum collection A - initiation/placement of O2 therapy; B - O2 therapy monitoring NIV/CPAP management and monitoring Education on respiratory exercises	DIRECT CARE

	A - physical examination; B - assessment; C - communication	
URINARY SYSTEM	Placement of: A - urinary catheter; B - bedpan; C - urinal Removal of: A - urinary catheter; B - bedpan; C - urinal Urinary catheter irrigation BAG REPLACEMENT Emptying: A - urinary catheter bag; B - urinal; C - jug Urine testing: A - sample from urinary catheter; B - routine urine sample; C - urine culture Urostomy management Initiation of bladder irrigation Emptying bladder irrigation drainage Intermittent urinary catheterisation A - physical examination; B - assessment; C - communication	DIRECT CARE
DIGESTIVE SYSTEM	Assistance with feeding Enteral feeding Evacuative enema (preparation + administration) Sorbicis A - rectal examination; B - manual evacuation A - tube insertion; B - tube check A - stool sample collection; B - stool assessment A - nasogastric tube (NGT) insertion; B - NGT management A - nausea management; B - vomiting management Stoma management Food diary Physical examination A - assessment; B - communication	DIRECT CARE
HYGIENE	Partial hygiene care Full hygiene care A - oral care B - dressing C - hair removal (trichotomy) A - assessment; B - communication	DIRECT CARE
MOBILISATION	A - bed-to-chair transfer; B - chair-to-bed transfer A - repositioning; B - mobilisation in bed A - assistance to the bathroom B - restraint C - bandaging D - anti-embolism stockings E - ice application A - assessment; B - communication	DIRECT CARE
BED MAKING	Partial bed making Simple bed making Occupied bed making Bed preparation (splint, bed cradle, pressure-relieving device) Stripping the bed A - assessment; B - communication	DIRECT CARE
WOUND CARE/DRESSINGS	Materials preparation Surgical wound dressing Dressing check Pleurevac check A - Pleurevac dressing; B - Pleurevac removal Drain check A - drain dressing; B - drain removal Complex wound dressing VAC therapy: A - management; B - dressing; C - check Pressure injury dressing A - assessment; B - communication	DIRECT CARE
INVASIVE PROCEDURES	A - materials preparation; B - assistance during the procedure Patient preparation Care of an unstable patient Emergency care A - assessment; B - communication	DIRECT CARE

ADMISSION / COMMUNICATION	Patient admission/welcome PATIENT DISCHARGE PATIENT TRANSFER Nursing documentation/form Conversation with the patient Patient/family education Ensuring patient comfort	DIRECT CARE
MEDICATION PREPARATION	Intermittent/short intravenous therapy Continuous intravenous therapy Enteral therapy Oral therapy Total medication preparation time	INDIRECT CARE
Other INDIRECT ACTIVITIES	Writing nursing handover notes for each patient Review of the nursing record Review of the medical/clinical record Recording data in the clinical record Calculation: A - fluid balance; B - drain output Verbal handover for each patient Completion of risk-prevention forms (falls, pressure injuries, malnutrition) Dietary planning	INDIRECT CARE
COMMUNICATIONS	Ward round Consultations: A - nursing colleagues; B - nurse manager Consultations with physicians Consultations with other professionals	INDIRECT CARE
TELEPHONE / INCOMING CALLS	Call from physician Call from service/department Call from admissions office External call Call from pharmacy	ORGANISATIONAL ACTIVITY
TELEPHONE / OUTGOING CALLS	Call to specimen transport service Call to patient transport service Call to pharmacy (medications/supplies/requests) Call to internal services (cleaning, maintenance, linen service, engineering, wards, other services) Call to external services (ambulance) Call to physician Call to admissions office	ORGANISATIONAL ACTIVITY
COMPUTER WORK	Management of own time/attendance record Email	ORGANISATIONAL ACTIVITY
TRAINING	Students Newly hired staff Nursing colleagues Healthcare assistants (OSS) Physicians	ORGANISATIONAL ACTIVITY
ISOLATION	A - initiation of isolation precautions; B - discontinuation of isolation precautions Donning personal protective equipment (PPE) Equipment disinfection Communication	ORGANISATIONAL ACTIVITY
DELEGATION	Student Healthcare assistant (OSS) Nurse Nurse manager Physician	ORGANISATIONAL ACTIVITY
MANAGERIAL / ORGANISATIONAL TASKS	Ordering medications/supplies Expiry-date checks Restocking ward areas Sorting/distributing supplies Cleaning and tidying ward areas Quality checks (glucometer, emergency trolley, morphine stock) Checking shift schedules and attendance Management of online procedures	ORGANISATIONAL ACTIVITIES
MEDICATION TROLLEY PREPARATION	A - trolley cleaning B - trolley restocking C - waste disposal	ORGANISATIONAL ACTIVITY
INTERRUPTION	Telephone Physician	NON-PATIENT CARE TIME

	Nurse/healthcare assistant (OSS) Student Family member Patient Call bell Transport/catering/physiotherapy staff Nurse manager Ward intercom Visitor	
TIME OUTSIDE THE WARD	Transportation or search for materials: Operating room Intensive care unit Service/department Transfer of the patient to another ward	NON-PATIENT CARE TIME
PERSONAL TIME	Break/toilet Internet use Personal phone use Conversation with colleagues	NON-PATIENT CARE TIME
WAITING	Waiting time	NON-PATIENT CARE TIME
WARD MOVEMENT	Searching for colleagues Searching for supplies/materials Searching for the physician Moving from one ward area to another Moving towards the patient	NON-PATIENT CARE TIME