

|               |       | CLINICAL DETAILS   |       |
|---------------|-------|--------------------|-------|
| Patient Name: | _____ | Date of Admission: | _____ |
| Age / DOB:    | _____ | Ward / Unit:       | _____ |
| Gender:       | _____ | Attending Nurse:   | _____ |
| MRN:          | _____ | Physician:         | _____ |

**Hypertension** is a chronic condition characterised by sustained arterial blood pressure  $\geq 130/80$  mmHg (AHA/ACC 2017) or  $\geq 140/90$  mmHg (WHO/ISH 2020). It is a leading modifiable risk factor for cardiovascular disease, stroke, chronic kidney disease, and premature death. Essential (primary) hypertension accounts for ~95% of cases. Effective nursing management integrates pharmacological therapy, lifestyle modification, patient education, and vigilant monitoring for end-organ damage.

■ TARGET VITAL SIGNS & MONITORING PARAMETERS

| Blood Pressure (Systolic)   | < 130 mmHg          | $\geq 180$ mmHg — notify physician immediately | Every 1–4 hrs                |
|-----------------------------|---------------------|--|------------------------------|
| Blood Pressure (Diastolic)  | < 80 mmHg           | $\geq 120$ mmHg — hypertensive crisis protocol | Every 1–4 hrs                |
| Heart Rate                  | 60–100 bpm          | < 50 or > 120 bpm — reassess & report          | Every 4 hrs                  |
| SpO <sub>2</sub>            | 94–99%              | < 94% — initiate supplemental oxygen           | Continuous / every 4 hrs     |
| Urine Output                | $\geq 0.5$ mL/kg/hr | < 30 mL/hr for 2 hrs — notify                  | Hourly (acute) / every shift |
| Temperature                 | 36.1–37.2°C         | > 38.5°C — investigate secondary causes        | Every 8 hrs                  |
| Blood Glucose (if diabetic) | 4–10 mmol/L         | < 4 or > 15 mmol/L — treat/report              | Every 6 hrs                  |

■ NURSING DIAGNOSES & CARE PLANS

**Nursing Diagnosis #1: Risk for Decreased Cardiac Output**

**Related To:** Increased peripheral vascular resistance, vasospasm, myocardial ischemia

**Evidenced By:** Blood pressure > 140/90 mmHg, tachycardia, dyspnoea, chest discomfort

**EXPECTED OUTCOMES / GOALS**

- Patient will maintain BP within target range (< 130/80 mmHg) within 24–48 hrs
- Patient will demonstrate stable cardiac rhythm and haemodynamic status
- Patient will report absence of chest pain or dyspnoea by discharge

**NURSING INTERVENTIONS**

**Assessment**

- Monitor BP in both arms every 1–4 hrs; note pulse pressure
- Auscultate heart sounds; note S3/S4 gallop or murmurs
- Assess for signs of cardiac failure: JVD, peripheral oedema, crackles
- Monitor ECG for arrhythmias or ischaemic changes
- Measure urine output hourly; report < 30 mL/hr

**Therapeutic**

- Administer antihypertensives as prescribed (ACE inhibitors, CCBs, ARBs, beta-blockers)
- Maintain patient in semi-Fowler's (30–45°) to reduce cardiac workload
- Provide supplemental oxygen if SpO<sub>2</sub> < 94%; titrate to maintain 94–98%
- Ensure IV access; administer IV antihypertensives for hypertensive urgency/emergency
- Restrict sodium intake to < 2 g/day; encourage DASH diet

**Education**

- Teach patient importance of medication adherence and consequences of abrupt cessation
- Instruct on self-monitoring of BP using validated home device
- Educate on activity restrictions and gradual return to exercise

**EVALUATION CRITERIA:** BP within target range; heart rate 60–100 bpm; no signs of cardiac decompensation; patient verbalises understanding of regimen

**Nursing Diagnosis #2: Acute Pain / Headache**

**Related To:** Increased cerebral vascular pressure, cerebral oedema

**Evidenced By:** Patient reports headache (NRS  $\geq$  4/10), visual disturbances, nuchal rigidity

**EXPECTED OUTCOMES / GOALS**

- Patient will report pain reduction to NRS  $\leq$  3/10 within 1–2 hrs of intervention
- Patient will identify and avoid headache-triggering factors prior to discharge

**NURSING INTERVENTIONS**

**Assessment**

- Assess headache character, location, duration, and NRS rating every hour
- Monitor neurological status (GCS, pupillary response, motor strength)
- Assess for papilloedema, blurred vision, or photophobia

**Therapeutic**

- Provide a quiet, low-lit environment; minimise stimulation
- Administer analgesia as prescribed (paracetamol preferred; avoid NSAIDs if renal compromise)
- Apply cool, moist cloth to forehead; elevate HOB 30°
- Ensure adequate hydration; administer IV fluids as ordered
- Avoid Valsalva manoeuvres (straining, forceful coughing)

**Education**

- Teach relaxation techniques: deep breathing, progressive muscle relaxation
- Advise on avoiding caffeine, alcohol, and high-sodium foods
- Stress management counselling referral if indicated

**EVALUATION CRITERIA:** Pain rated  $\leq$  3/10; patient utilises non-pharmacological strategies; no neurological deficits noted

**Nursing Diagnosis #3: Knowledge Deficit**

**Related To:** Lack of information regarding hypertension, its complications, and management

**Evidenced By:** Patient asks questions about condition, non-adherence to treatment reported, lifestyle risk factors present

**EXPECTED OUTCOMES / GOALS**

- Patient will accurately describe hypertension and its complications before discharge
- Patient will demonstrate correct BP self-monitoring technique
- Patient will commit to at least two lifestyle modifications

**NURSING INTERVENTIONS**

|                               |  |
|-------------------------------|--|
| <b>Assessment</b>             | <ul style="list-style-type: none"> <li>• Assess patient's baseline knowledge, literacy, and preferred learning style</li> <li>• Identify barriers to learning: language, anxiety, physical limitations</li> <li>• Evaluate current lifestyle: diet, physical activity, smoking, alcohol, stress</li> </ul>   |
| <b>Therapeutic / Teaching</b> | <ul style="list-style-type: none"> <li>• Provide structured education on: pathophysiology, target BP values, risk factors</li> <li>• Demonstrate and return-demonstrate BP monitoring with home sphygmomanometer</li> <li>• Explain each medication: purpose, dose, schedule, side-effects, missed-dose guidance</li> <li>• Discuss DASH diet, sodium restriction (&lt; 2 g/day), weight management (BMI &lt; 25)</li> <li>• Encourage aerobic exercise ≥ 30 min, ≥ 5 days/week (moderate intensity)</li> <li>• Advise smoking cessation and limiting alcohol (&lt; 2 units/day men; &lt; 1 unit/day women)</li> </ul> |
| <b>Education</b>              | <ul style="list-style-type: none"> <li>• Provide written materials in appropriate language and health literacy level</li> <li>• Schedule follow-up appointment; reinforce 24-hr nurse helpline availability</li> <li>• Involve family/caregiver in education sessions</li> </ul>   |

**EVALUATION CRITERIA:** Patient accurately explains hypertension; demonstrates correct BP technique; describes medication plan and ≥ 2 lifestyle changes

**Nursing Diagnosis #4: Risk for Ineffective Tissue Perfusion (Cerebral, Renal, Peripheral)**

**Related To:** Sustained elevated arterial pressure, vascular endothelial damage

**Evidenced By:** Hypertensive end-organ involvement: elevated creatinine, proteinuria, fundoscopic changes, peripheral pulses diminished

**EXPECTED OUTCOMES / GOALS**

- Patient will maintain urine output  $\geq$  0.5 mL/kg/hr throughout hospitalisation
- Patient will show no new neurological deficits or visual changes
- Peripheral pulses will remain palpable ( $\geq$  2+) bilaterally

**NURSING INTERVENTIONS**

**Assessment**

- Assess peripheral pulses, capillary refill, skin colour and temperature every shift
- Monitor urine output, serum creatinine, BUN, and eGFR daily
- Perform neurological checks every 4 hrs (GCS, orientation, limb strength)
- Monitor fundoscopic findings if ophthalmology review available

**Therapeutic**

- Maintain MAP within prescribed limits; avoid rapid BP reduction ( $>$  25% in first hour)
- Administer renal-protective agents (ACE inhibitors/ARBs) as prescribed for diabetic nephropathy
- Maintain adequate hydration; avoid nephrotoxic agents
- Encourage foot care and patient to report limb numbness, coldness, or colour change

**Education**

- Educate on signs of stroke (FAST), TIA, renal failure, and when to seek emergency care
- Discuss importance of diabetic control if applicable (target HbA1c  $<$  7%)

**EVALUATION CRITERIA:** Urine output adequate; creatinine stable or improving; no new neuro deficits; peripheral pulses 2+ bilaterally

**Nursing Diagnosis #5: Anxiety**

**Related To:** New diagnosis, fear of complications, lifestyle change demands, hospitalisation

**Evidenced By:** Patient expresses fear/worry, elevated HR, restlessness, insomnia

**EXPECTED OUTCOMES / GOALS**

- Patient will verbalise reduced anxiety (score ≤ 4 on GAD-7 subset) within 24 hrs
- Patient will demonstrate ≥ 1 effective coping strategy before discharge

**NURSING INTERVENTIONS**

**Assessment**

- Assess anxiety level using validated tool (GAD-7) at admission and daily
- Identify specific fears and misconceptions about hypertension
- Monitor sleep quality and patterns

**Therapeutic**

- Establish therapeutic nurse-patient relationship; use active listening
- Provide clear, honest information in simple language; correct misconceptions
- Teach guided imagery, diaphragmatic breathing, and progressive relaxation
- Reduce environmental stressors: noise, interruptions, clustering care
- Administer anxiolytics only if prescribed and non-pharmacological methods fail

**Education**

- Refer to social worker or psychologist if anxiety is severe or persistent
- Encourage family support and inclusion in care planning
- Discuss community support groups for hypertension management

**EVALUATION CRITERIA:** Patient rates anxiety ≤ 4/10; verbalises coping strategies; resting HR within normal limits; sleeping adequately

**DISCHARGE PLANNING CHECKLIST**

**Medications**

- Patient can name all medications, doses, times, and purpose
- Prescription/refill plan in place; patient knows pharmacy contact
- Written medication schedule provided

**BP Monitoring**

- Home BP device demonstrated; patient returns demonstration correctly
- BP log/diary provided; patient understands target values
- Instructions on when to seek emergency care (BP > 180/120 mmHg)

**Lifestyle**

- DASH diet education completed; low-sodium meal plan given
- Exercise plan agreed: type, frequency, intensity, contraindications
- Smoking cessation referral if applicable; alcohol reduction discussed
- Weight reduction goal set if BMI > 25 kg/m<sup>2</sup>

**Follow-up**

- Follow-up appointment scheduled (within 1–4 weeks post-discharge)
- Community nurse or outpatient hypertension clinic referral if needed
- Emergency contacts and escalation pathway explained

**CLINICAL REFERENCES**

1. Whelton PK, et al. (2018). 2017 ACC/AHA Hypertension Guidelines. *JACC*, 71(19), e127–e248.

2. Unger T, et al. (2020). 2020 ISH Global Hypertension Practice Guidelines. *Hypertension*, 75(6), 1334–1357.
3. NANDA International. (2021–2023). *Nursing Diagnoses: Definitions and Classification*. Thieme.
4. Butcher HK, et al. (2018). *Nursing Interventions Classification (NIC)*, 7th ed. Elsevier.
5. Moorhead S, et al. (2018). *Nursing Outcomes Classification (NOC)*, 6th ed. Elsevier.
6. WHO. (2023). *Hypertension – Key Facts*. World Health Organization.

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