Nurses Content
Downloaded from nursescontent.com

Paediatric Nursing Procedures

Child Health Nursing

Medication administration, dosage calculation, paediatric fluid calculation, intravenous therapy, oxygen administration, nebulisation, nasogastric feeding, specimen collection and paediatric catheterisation.

For educational purposes only.

CHAPTER 21 / CHILD HEALTH NURSING 21. Paediatric Nursing Procedures

1. Medication calculations

Use measured weight in kg, verify prescription basis (mg/kg/dose vs mg/kg/day), maximum dose, concentration, route, interval and renal/hepatic status. Independent check for high-alert drugs. Educational example: order 10 mg/kg/dose for 12 kg = 120 mg per dose; if liquid 100 mg/5 mL, volume = 6 mL. If 30 mg/kg/day divided three doses at 12 kg, total 360 mg/day = 120 mg each. These are arithmetic examples, not drug recommendations.

2. Maintenance fluid calculations (educational)

Traditional Holliday-Segar daily estimate: first 10 kg 100 mL/kg/day, next 10 kg 50 mL/kg/day, each kg above 20 kg 20 mL/kg/day. For 18 kg = 1000 + 400 = 1400 mL/day (~58.3 mL/h). The hourly 4-2-1 approximation gives 56 mL/h; do not mix calculations. Actual maintenance, deficits and ongoing losses are separate prescriptions; infants/neonates, DKA, malnutrition, renal/cardiac disease need special protocols. Many hospitalized children need isotonic maintenance fluid with individualized dextrose/potassium rather than routine hypotonic solutions.

3. Procedures and safety

Procedure	Nursing essentials
IV therapy	Correct size/access, aseptic prep, verify fluid/drug and pump, frequent site assessment for infiltration/extravasation; monitor output.
Oxygen / nebulisation	Age-sized device, ordered saturation/flow, check prescription and dose, reassess work of breathing and response.
NG feeding	Verify tube position with approved pH/radiographic method before use and after displacement concern; never rely on air auscultation; appropriate position/rate.
Specimen collection	Two identifiers, correct container/quantity, minimize pain and blood loss; urine clean catch or indicated sterile collection, prompt transport.
Catheterisation	Only when indicated, trained technique, appropriate catheter, aseptic insertion, confirm placement before balloon inflation, closed drainage and early removal.
Medication administration	Use oral syringe for liquids, distinguish concentrations, verify IM/IV route and site, observe swallowing and adverse effects.

4. Procedure sequence

Assess child, identify and explain with age-appropriate language, consent/assent, gather equipment, hand hygiene and comfort, perform under supervision, reassess, disposal and documentation. Offer caregiver support

Nurses Content
Downloaded from nursescontent.com

and analgesia/distraction. Do not restrain unnecessarily or use incorrect dosing spoons.

5. Important Examination Questions

Long Answer Questions

1. 1. Explain paediatric dose and maintenance fluid calculations with examples.

NURSE'S CONTENT / CHILD HEALTH NURSING 36

B.SC. NURSING / CHAPTER-WISE STUDY NOTES

Short Answer Questions

1. 1. Describe NG feeding safety
2. 2. explain IV therapy monitoring
3. 3. list preparation steps.

Very Short Answer Questions (with answers)

1. 1. How convert g to mg? - Multiply by 1000.
2. 2. Is air auscultation reliable for NG position? - No.

6. Quick Revision

- Weight in kg and dose units are critical.
- Calculated maintenance is not a universal prescription.
- Minimize procedure-related distress.

7. Conclusion

Weight in kg and dose units are critical. Calculated maintenance is not a universal prescription. Minimize procedure-related distress.

Practice questions

Choose one best answer. The answer key and explanations follow the questions.

1. Before using a paediatric weight-based medication order, which distinction must be verified?

A. Whether the order is mg/kg/dose or mg/kg/day
B. Whether an adult dose can be scaled using age alone
C. Whether milligrams and millilitres can be treated as equal units
D. Whether a household spoon gives the same accuracy as a syringe

2. Which approach is appropriate for checking NG tube position before feeding?

A. Rely on air auscultation alone
B. Use an approved pH or radiographic method
C. Assume position is unchanged after displacement concern
D. Use the child's lack of coughing as proof

Nurses Content
Downloaded from nursescontent.com

3. Which device improves accuracy when administering liquid oral medicines to children?

A. A household teaspoon

B. A drinking cup without markings

C. An oral syringe

D. A bottle cap

4. A paediatric medicine is prescribed in mg/kg. What should the nurse verify before calculating the dose?

A. A weight guessed from age alone

B. The caregiver's weight

C. A weight in pounds treated as kilograms

D. A current measured weight in kilograms and the prescribed dose limits

Nurses Content
Downloaded from nursescontent.com

Answer key and explanations

1. A - Whether the order is mg/kg/dose or mg/kg/day

Per-dose and per-day orders lead to different calculations and must be distinguished.

2. B - Use an approved pH or radiographic method

Approved verification is required; air auscultation is unreliable.

3. C - An oral syringe

An oral syringe supports accurate measurement of small liquid doses.

4. D - A current measured weight in kilograms and the prescribed dose limits

Weight-based dosing requires an accurate current kilogram weight, the correct formulation and relevant maximum-dose and prescription checks. Unit errors can cause serious harm.

Source and attribution

Online chapter: https://nursescontent.com/learn/child-health-nursing/unit-21-paediatric-nursing-procedures/

Downloaded from Nurses Content. Branding identifies the delivery website. Original author credits, third-party licences and applicable rights remain unchanged.