Western Cape Government
Health

PACK
Practical Approach to Care Kit

Practical Approach to Care Kit

Primary Care Guide for the Child· 2017/18· Pilot version
Western Cape Edition

What is PACK Child?

The Practical Approach to Care Kit (PACK) Child guide is a comprehensive guide for the primary care of the child up to 13 years old. It uses simple algorithms to evaluate and treat the child with common symptoms and a standardised checklist format to care for the child with a long-term health condition. It supports the clinician to integrate the routine care of the child into every visit.

The PACK programme has been developed, tested and refined over a period of 15 years by the Knowledge Translation Unit (KTU), University of Cape Town Lung Institute, in consultation with clinicians and Provincial Department of Health managers and policy makers in the Western Cape. The PACK Child guide is designed to articulate with the PACK Adult programme helping the clinician to manage the child along with the carer and family.

The PACK Child guide is not intended to replace the Integrated Management of Childhood Illnesses (IMCI). It aligns with the IMCI content but is arranged in a format that allows for expansion, including the management of the child over the age of 5, a greater number of symptom-based approaches as well as a new focus on long-term health conditions and the well child. This guide is also designed to comply with the Standard Treatment Guidelines (STG) and the Essential Medicines Lists (EML) as determined by the South African Essential Drugs Programme.
This PACK Child 2017 edition has been tailored to local Western Cape policy and protocols including the Provincial Code List and Supplementary lists and is a pilot version designed for testing in a limited number of Western Cape primary care facilities.

How to use PACK Child

The PACK Child guide is designed to structure a clinical consultation with a child in primary care, providing preventive, curative and long-term care at the same visit. It is divided into three main sections:

- **Routine care section:** in the stable child, start the consultation on the routine care page relevant to the age of the child (< 2 months old or ≥ 2 months old). Use the standard 'Assess, Advise and Treat' framework to address the child's general health (feeding, development, immunisations, growth) and provide preventive treatment.
- **Symptom section:** Use the Symptoms contents page to find the relevant symptom page in the guide. Decide if the child needs urgent attention (in the red box) and if not, follow the algorithm to either a management plan or to consider a long-term health condition.
- **Long-term health condition section:** Use the Long-term Health Condition contents page to find that condition in the guide. Go to the colour-coded routine care pages to manage the child's long-term health condition using the 'Assess, Advise and Treat' framework.

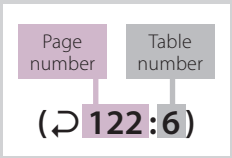
Step 1	If immediate life-threatening emergency or child is seriously unwell and needs urgent attention, go straight to the relevant symptom page (see **Contents: symptoms**).
Step 2	If no emergency and child is not seriously unwell, start every consultation with routine care (see **Contents: integrate routine care into every visit**).
Step 3	Once you have completed routine care, consult relevant symptom or long-term health condition (see **Contents: symptoms** or **Contents: long-term health conditions**).

Use these features to navigate PACK Child

- **Arrows** refer you to another page in the guide:
  - The **direct arrow** (→) guides you to leave the page and continue on another page.
  - The **return arrow** (↩) guides you to consult another page but suggests you return and continue on the original page. Ideally, complete the original page and keep track of the other page/s you still need to consult, unless the other page is needed to continue the assessment.

- (↩128) directs you to the **Quick reference chart** on the back page for:
  - Normal ranges of respiratory rate, pulse rate and blood pressure
  - How to estimate weight according to age
  - How to calculate maintenance fluids
  - How to calculate endotracheal tube size
  - Level of consciousness assessments using the AVPU scale.

- (↩122:6) directs you to the **medication dosing tables** on page 122 (get there using the Medications Dosing Tables tab). The first number indicates the relevant page number to turn to and the second number indicates the number of the table to consult.



- The "**Assess**" tables are arranged in 3 tones to reflect those aspects of the history, examination and investigations to consider.

- **Medications are highlighted in orange, blue or green:**
  - Orange-highlighted medications may be prescribed by a doctor or an authorised prescriber (clinical nurse practitioner or professional nurse) in accordance with his/her scope of practice within a specified field (like IMCI-trained nurse).
  - Blue-highlighted medications may be prescribed by a doctor or clinical nurse practitioner who is an authorised prescriber.
  - Green-highlighted medications may be prescribed by a doctor only.

- **How to interpret age and weight ranges:**
  - '**10-12kg**' means 'from and including 10kg, up to but not including 12kg'. The next range starts with 12kg.
  - '**< 2 months old**' refers to a baby less than 2 months old and not including 2 months.
  - '**≥ 2 months old**' indicates that the baby is 2 months old and older (this includes the whole month that the baby is 2 months old).
  - '**< 5 years old**' refers to a child who is younger than 5 years, not including being 5 years old.
  - '**≥ 5 years old**' refers to a child who is 5 years old and older, and starts on the day the child turns 5.

- Refer to the **Glossary** for abbreviations and units used in PACK Child.

Glossary

A

AIDS	acquired immunodefiency syndrome
ALP	alkaline phosphatase
ALT	alanine aminotransferase
ART	antiretroviral therapy

B

BCG	Bacillus Calmette-Guérin vaccine
BMI	body mass index
BP	blood pressure measured in millimeters of mercury [mmHg]

C

CD4	count of the lymphocytes with a CD4 surface marker
CPR	cardiopulmonary resuscitation
Cr/Cl	creatinine clearance

D

DR-TB	drug-resistant tuberculosis
DS-TB	drug-sensitive tuberculosis
DST	drug susceptibility testing
DTap	diphtheria, tetanus, acellular pertussis vaccine

E

eCcr	estimated creatinine clearance
ECG	electrocardiogram
ELISA	enzyme-linked immunosorbent assay
ENT	ear, nose and throat specialist

F

FBC	full blood count
FCS	Provincial Family Violence, Child Protection and Sexual Offences

G

GMFCS	Gross motor function classification system

H

Hb	haemoglobin
HBsAb	hepatitis B surface antibody
HBsAg	hepatitis B surface antigen
HB	hepatitis B vaccine
HFA	height-for-age
HiB	haemophilus influenza type b
HIV	human immunodeficiency virus
HPV	human papilloma virus vaccine

I

IM	intramuscular
IMCI	integrated management of childhood illness
IO	intraosseous
IPT	isoniazid preventive therapy
IU	international units
IV	intravenous

K

KMC	kangaroo mother care

L

L/HFA	length/height-for-age

M

MAM	moderate acute malnutrition (defined as: WFL/H between -2 line and -3 lines or BMI between -2 line and -3 line or MUAC between 11.5cm and 12.5cm, with no oedema)
MCV	mean corpuscular volume
MOU	maternity obstetric unit
MTB	*mycobacterium tuberculosis*
MU	million units

N

NGO	non-governmental organisation
NGT	nasogastric tube
NTP	nutritional therapeutic programme

O

ORS	oral rehydration solution
OPD	outpatients department
OPV	oral polio vaccine

P

PCP	pneumocystis pneumonia
PCR	polymerase chain reaction
PCV	pneumococcal conjugate vaccine
PEP	post-exposure prophylaxis
PJP	*Pneumocystis jerovicii* pneumonia
PMTCT	prevention of mother-to-child-transmission
PPE	papular pruritic eruption
PPD	purified protein derivative
Pulse rate	measured in beats per minute

R

Respiratory rate	measured in breaths per minute
RtHB	Road to Health Booklet
RV	rotavirus vaccine

S

SAM	severe acute malnutrition (defined as: WFL/H below -3 line or BMI below -3 line or MUAC < 11.5cm or MAM with oedema)
SAPS	South African Police Service
Sats	oxygen saturation
SBP	systolic blood pressure

T

TB	tuberculosis
TBSA	total body surface area
Td	tetanus and diphtheria vaccine
TSB	total serum bilirubin
TSH	thyroid stimulating hormone
TST	tuberculin skin test

V

VL	viral load

W

WFA	weight-for-age
WFL	weight-for-length
WFL/H	weight-for-length/height

Contents

Integrate routine care at every visit

Symptoms

Long-term health conditions

Nutrition

Tuberculosis (TB)

HIV

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Other long term health conditions

Special needs

Palliative care 123

Other pages

Child ≥ 2 months old: routine care

Record problems and plot growth in notes and Road to Health Booklet (RtHB).

Assess	When to assess	Note
Symptoms	If sick visit	Manage symptoms on symptom page ⮌contents. If child is seriously unwell, manage symptom first.
Feeding	Every visit if < 2 years old	Determine method of feeding. Ask carer if feeding problem. If yes, assess and manage further: if breastfeeding (or mixed feeding) ⮌87, if formula feeding ⮌89, if eating solids ⮌90.
Growth	Check chart ⮌14	Interpret measurements ⮌15. If born premature, use corrected age[1] until 2 years.
Development *(Screen at every visit. Also check routine milestones at specific ages listed.)*	Every visit	Ask "Is child able to say and do what children of the same age can?" If no, manage problem: if vision problem ⮌44, if communication problem ⮌81, if not moving or sitting properly ⮌82.
	14 weeks old	If unable to follow a close object with eyes ⮌44. If does not respond (stops sucking, blinks or turns) to sound ⮌81. If unable to lift head when held against shoulder ⮌82.
	6 months old	If unable to recognise familiar faces ⮌44. If does not turn to look for sound ⮌81. If unable to hold a toy in each hand ⮌82.
	9 months old	If unable to focus on a far object or has a squint ⮌44. If does not turn when called ⮌81. If unable to sit and play without support ⮌82.
	15 months old	If unable to stand on his/her own ⮌82.
	18 months old	If not looking at or reaching for small objects or pictures ⮌44. If unable to point to 3 simple objects, uses < 3 words, does not obey simple commands ⮌81. If unable to walk unsupported or if unable to feed using fingers ⮌82.
	3 years old	If unable to see small shapes clearly from 6 metres ⮌44. If unable to talk in simple 3-word sentences ⮌81. If unable to run or climb ⮌82.
	5 years old	If any problem with vision ⮌44. If unable to speak in full sentences or not interacting with children and adults ⮌81. If unable to hop on one foot or draw a stick person ⮌82.
Well child visits	Every visit	Check if immunisations, deworming, vitamin A are up to date in RtHB and what is due at this visit ⮌14. If missed doses, catch up ⮌13.
HIV	Every visit if not known HIV positive	• If HIV status unknown, decide if HIV test is needed ⮌105. • If HIV negative and breastfeeding, check that mother tests for HIV every 3 months. • If HIV-exposed (mother HIV positive), check child has had routine HIV tests ⮌105. Ensure the HIV-exposed baby is receiving PMTCT ⮌111. • If HIV positive, ensure on ART and give routine HIV care ⮌106.
TB	Every visit	If close TB contact ⮌98. If TB symptoms (cough or fever ≥ 2 weeks, not growing well/losing weight, tired/less playful) ⮌100.
Mother/carer	Every visit	Ask about general health, HIV status, contraceptive needs and TB symptoms ⮌PACK Adult.
Psychosocial risk	Every visit	• If child support grant needed, advise to take child's birth certificate and carer's ID to SASSA[2] to apply. • Look for increased psychosocial risk (carer/parent < 20 years old, family/relationship problems, violence at home, lack of partner/family support, financial difficulty, difficult life event in last year, foreigner): give additional support, review more often if needed and if relevant, link with support services/helpline ⮌134. • Screen for depression in carer: in the past month, has carer: 1) felt down, depressed, hopeless or 2) felt little interest or pleasure in doing things? If yes to either ⮌PACK Adult. • If yes to both of the following ⮌85: 1) Are you struggling with or feeling overwhelmed by parenting? 2) Would you like help with this? • If abuse or neglect suspected ⮌78.
Mental health	Every visit	If over past few months, child has been miserable, stressed or angry ⮌79 or if problematic change in behaviour ⮌80.
School problems	If ≥ 6 years old: every visit	• Check if child at school: if not enrolled in school, refer to social worker. • If poor attendance, bullying, learning problems, difficulty socialising at school ⮌83.
Basic examination	Every visit	Check for obvious problems (if < 2 years old, undress child fully): pallor[3] ⮌42, skin problem (especially nappy area) ⮌67, injury ⮌32, if deformity, discuss/refer.

Continue to advise and provide routine care treatment → 13.

[1]Corrected age = actual age in months (or weeks) - number of months (or weeks) premature. To calculate corrected age of 9 month old baby, born premature at 32 weeks (this is 8 weeks or 2 months premature): 9 months - 2 months = 7 months. [2]South Africa Social Security Agency. [3]Look for palmar pallor: child's palm is much less pink than your own. Also look for conjunctival pallor: look for paleness of the lower inner eyelid.

Advise the child and carer and give health promotion messages

Advise about parenting:
- The first 1000 days (conception - 2 years old) are vital to a child's development.
- Stimulate development, respond when baby cries, talk to baby, read daily, tell stories, sing songs, play.
- Establish routines, provide discipline and actively listen to child. Avoid smoking in house or near child.

Educate about hygiene:
- Wash hands with soap and water, especially after using toilet/handling food/cleaning wounds.
- Wash fruit/vegetables. If no access to clean water, boil and cool water.

Discuss safety:
- Lock away toxic substances, safeguard fires/paraffin lamps/electrical sockets.
- Teach road safety, use seat belts/car seats.

Encourage a healthy lifestyle:
- Ensure a balanced diet. Limit sweets, chocolates, fizzy drinks and salt.
- Advise physical activity ≥ 1 hour/day (team sports/outside play).
- Limit TV/computer/phone to < 2 hours/day. Advise no TV if < 2 years old. Monitor adult content.

Immunise and treat the child

- Multivitamins: if < 6 months old *and* premature or low birth weight (< 2.5kg), give multivitamin 0.6mL once daily and ferrous gluconate or ferrous lactate 0.6mL once daily until 6 months old.
- Vitamin A: give single dose vitamin A (↩133:28) 6 monthly. If 6-12 months old, give 100 000IU. If 1-5 years old, give 200 000IU.
- Deworm: give mebendazole (↩132:22) 6 monthly. If 12-24 months old, give 100mg 12 hourly for 3 days. If ≥ 24 months old, give a single dose of 500mg.
- Immunise: give immunisations (see table) even if born premature, unwell (delay only if temperature ≥ 38°C) or RtHB missing[1]. If missed immunisation, manage in table below.

Give routine immunisations:

Age	Immunisation	Site
Birth	BCG[2]	Intradermal right arm
	OPV 0	Oral
6 weeks	OPV 1	Oral
	RV 1	Oral
	Hexavalent 1: DTap-IPV-HB-Hib 1	IM left thigh
	PCV 1	IM right thigh
10 weeks	Hexavalent 2: DTap-IPV-HB-Hib 2	IM left thigh
14 weeks	Hexavalent 3: DTap-IPV-HB-Hib 3	IM left thigh
	PCV 2	IM right thigh
	RV 2	Oral
6 months	Measles 1	Subcutaneous left thigh
9 months	PCV 3	IM right thigh
12 months	Measles 2	Subcutaneous right arm
18 months	Hexavalent 4: DTap-IPV-HB-Hib 4	IM left arm
6 years	Td	IM left arm
9 years if a girl (given at school)	HPV Repeat in 6 months.	IM left arm
12 years	Td	IM left arm

Catch up missed immunisation/s:

Refer to community health worker. If concerns about poor parental care, refer social worker.

Immunisation	Give first dose according to age:	Give next dose/s, if needed, after minimum interval:		
		Dose 2	Dose 3	Dose 4
BCG[2]	If < 1 year, give now.			
	If ≥ 1 year, do not give.			
OPV	If < 6 months, give now.	Give 4 weeks later.		
	If > 6 months, do not give.			
DTaP-IPV-HB-Hib	If < 2 years, give now.	Give 4 weeks later.	4 weeks	Give at 18 months old.
	If 2-6 years, give now.	Give 4 weeks later.	Give 4 weeks later.	Give 12 months later.
RV	If < 20 weeks, give now.	Give 4 weeks later.		
	If 20-24 weeks, give now.			
	If > 24 weeks, do not give.			
PCV	If < 6 months, give now.	Give 4 weeks later.	Give at 9 months old.	
	If 6-11 months, give now.	Give 4 weeks later.	Give 8 weeks later.	
	If 12 months - 6 years, give now.	Give 4 weeks later if long-term health condition.	Give 8 weeks later if long-term health condition.	
Measles[3]	If < 11 months, give now.	Give at 12 months old.		
	If ≥ 11 months, give now.	Give 4 weeks later.		
Td	If > 6 years, give now.	Give at 12 years old.		

Decide when child should return for next routine care visit ↩14.

[1]Issue a new RtHB if RtHB lost. [2]If baby TB exposed, delay BCG until IPT/TB treatment completed ↩98. [3]Avoid giving measles at same time as other immunisations. If other immunisations needed at same time, give measles immunisation immediately and arrange visit to receive remaining immunisation 1 month later.

Assess and manage child's fluid needs

Assess the child's fluid needs:
Is there ≥ 2 of 1) cold hands/feet, 2) weak/fast pulse (↩135), 3) capillary refill time (CRT)[1] > 3 seconds, 4) decreased level of consciousness (↩135)?

Yes: **shock** likely
- Establish IV access: try 3 times for < 90 seconds each, if unsuccessful, insert external jugular or intra-osseous (IO) line. If IV access not possible, refer urgently with ORS 20mL/kg/hour NGT or orally if NGT not possible.
- Any of: < 3 months old, ≥ 5 years old, severe acute malnutrition[3], difficulty breathing, suspected meningitis?

No
- Give sodium chloride 0.9% 20mL/kg bolus IV/IO rapidly.
- Then assess response: feel hands, check pulse and CRT.

Good response: hands warmer, CRT faster, pulse slower and stronger

No longer shocked Continue sodium chloride 0.9% 20mL/kg/hour IV.

Poor response: hands still cold or pulse weak or not felt, CRT > 3 seconds

Still shocked
Is pulse rate up by 25 beats/minute or respiratory rate up by 5 breaths/minute or eyelids puffy?

No

Call doctor or urgently discuss further fluids with referral centre:
- 2nd bolus: sodium chloride 0.9% 20mL/kg bolus IV/IO *rapidly*.
- If injured and bleeding, also discuss blood 10mL/kg IV.

Yes
- Give sodium chloride 0.9% 10mL/kg IV/IO over 20 minutes.
- Then assess response: feel hands, check pulse and CRT.

Poor response: hands still cold or pulse weak or not felt, CRT > 3 seconds

Still shocked
Are eyelids puffy, leg swelling worse, is pulse rate up by 25 beats/minute or respiratory rate up by 5 breaths/minute?

Yes

Stop IV fluids, give oxygen 2L/minute via nasal prongs, and discuss with referral centre.

No

Call doctor or urgently discuss further fluids with referral centre:
- 2nd bolus: sodium chloride 0.9% 10mL/kg IV/IO over 20 minutes.

Good response: hands warmer, CRT faster, pulse slower and stronger

No longer shocked Continue ORS 10mL/kg/hour orally/NGT.

No
- If lethargic, check fingerprick glucose, if ≤ 3mmol/L or ≥ 11mmol/L ↩31.
- Is there ≥ 2 of: 1) sunken eyes, 2) drinking poorly, 3) lethargic, 4) very slow skin pinch[2] (≥ 2 seconds)?

Yes
Severe dehydration (**10%**) likely
Any of: < 3 months old, ≥ 5 years old, severe acute malnutrition[3], difficulty breathing, suspected meningitis?

No

Give sodium chloride 0.9% IV or ORS via NGT at 20mL/kg/hour.

Yes

Give sodium chloride 0.9% IV 10mL/kg for 1 hour, then give ORS 10mL/kg/hour via NGT/oral until transfer.
If IV access not possible, give 10mL/kg/hour via NGT or orally if NGT not possible.

No
Is there ≥ 2 of: 1) sunken eyes, 2) thirsty/drinks eagerly, 3) restless/irritable, 4) slow skin pinch[2]?

Yes
Moderate dehydration (**5%**) likely
Any of: < 3 months old, ≥ 5 years old, severe acute malnutrition[3], difficulty breathing, suspected meningitis ?

No
Give ORS 20mL/kg/hour orally, using small frequent sips, for 4 hours.

Yes
Give ORS 10mL/kg/hour orally using small frequent sips, for 4 hours.

- Record weight.
- If child vomits, wait 10 minutes, then continue more slowly.
- Avoids feeds, unless breastfeeding.
- If refusing to drink, give via NGT.
- Give more ORS if child wants it.
- Check fingerprick glucose, if < 3mmol/L or ≥ 11mmol/L ↩31.

Reassess after 4 hours:
- If still dehydrated or weight not up, refer.
- If no longer dehydrated and child has diarrhoea →57.
- Address other symptoms on symptom page.

No
Child not dehydrated

Return to relevant symptom page to assess and manage symptom/s.

Refer urgently. While awaiting transfer:
- If not already done, check fingerprick glucose, if < 3mmol/L or ≥ 11mmol/L ↩31.
- If not due to watery diarrhoea or trauma, or if child has severe acute malnutrition[3] or is < 3 months old, give single dose ceftriaxone 100mg/kg (up to 2g) IV/IM (↩129:8).
- Reassess fluid status hourly and keep warm: place child skin-to-skin with mother and cover with blanket.

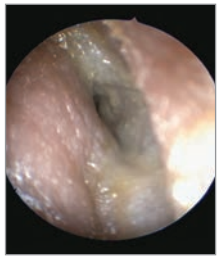
[1]Capillary refill time (CRT): hold hand/foot higher than level of heart. Press soft pad of finger/toe until it turns pale, then release pressure and note time taken for colour to return. [2]Pinch skin on abdomen between 2 fingers. Release. Skin usually snaps rapidly back to its normal position. A slow skin pinch takes longer. [3]Severe acute malnutrition: weight-for-length/height below -3 line or BMI below -3 line or MUAC < 11.5cm or any malnutrition with oedema.

Ear symptoms/difficulty hearing

Is ear itchy, painful, discharge from ear or is there difficulty hearing?

Itchy ear

Ear canal red/swollen (pus may be present)



Otitis externa likely
- Clean ear[1].
- Instil acetic acid 2% in alcohol after cleaning, 4 drops 6 hourly for 5 days.
- Give paracetamol 15mg/kg (up to 1g) 6 hourly for 5 days as needed (↩133:27).
- If severe pain, firm red swelling in canal, or temperature ≥ 38°C, give cephalexin[2] 12-25mg/kg (up to 500mg) 6 hourly for 5 days (↩129:9).
- If blisters on ear, **herpes zoster** likely, refer.

Painful ear

- Ear canal not red/swollen.
- Able to view eardrum?

No
Pain > 2 days or pain waking at night?

Yes

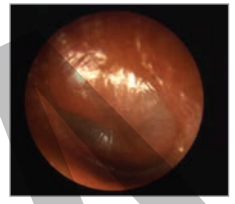
No
Has temperature been ≥ 38°C in last > 2 days?

Yes

No

- Give paracetamol 15mg/kg 6 hourly for 5 days as needed (↩133:27).
- Review in 2 days if no better.

Red bulging eardrum

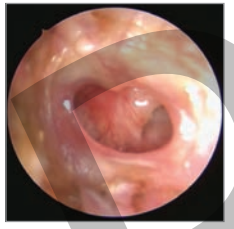


Acute otitis media likely
- Give paracetamol 15mg/kg (up to 1g) 6 hourly for 5 days as needed (↩133:27).
- Give amoxicillin[2] 45mg/kg/dose (up to 1g) 12 hourly for 5 days (↩128:3).
- Clean ear[1] if discharge and avoid getting ear wet.
- If > 1 episode, test for HIV ↩105.
- Advise to return if no better in 5 days: extend amoxicillin[2] for another 5 days and review after this.
- Refer if:
  - No response to treatment or > 5 episodes per year.
- Refer same day if:
  - Painful swelling behind ear, **mastoiditis** likely
  - Neck stiffness
  - Baby ≤ 1 month old
- If treated above but communication problem present ↩81.

Discharge from ear[3]

Discharge for ≤ 2 weeks

Symptoms ≥ 2 weeks, hole in eardrum



Chronic suppurative otitis media likely
- Clean ear[1].
- Instil acetic acid 2% in alcohol after cleaning, 4 drops 6 hourly for 5 days.
- If poor response to treatment, test for HIV ↩105 and TB ↩100.
- Refer if:
  - No better after 4 weeks
  - Large hole in drum
  - Difficulty hearing
- Refer same day if:
  - Neck stiffness
  - Painful swelling behind ear
  - Yellow/white deposit on eardrum, **cholesteatoma** likely

Difficulty hearing

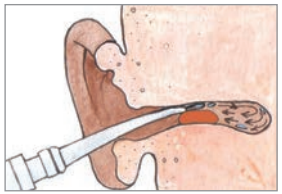
- If on drug resistant TB medication, discuss with TB doctor.
- If itchy or painful ear or discharge from the ear, see adjacent columns.
- Look in ear for foreign body, wax or fluid behind eardrum.
- If normal looking ear: arrange for hearing test (same week, if concerns about complete deafness).

Foreign body / Wax

- Syringe ears[4] with warm water.
- Avoid syringing and refer instead if:
  - Uncooperative
  - Grommets
  - Chronic suppurative otitis media
  - Hole in eardrum
  - Battery/ food in ear
  - Recent trauma to head or ear
  - Neck stiffness
- Stop and refer/call doctor if unsuccessful after 3 attempts/ causes pain or if foreign body remains in ear.
- If no better, arrange for hearing test.

Fluid behind eardrum

Otitis media with effusion likely
- Keep ear dry.
- Advise carer that usually resolves on own.
- If communication problem ↩81.
- Refer if still concerns about hearing after 3 months or if child clumsy/poor balance.



[4]How to syringe an ear: fill a 50-200mL syringe with warm water. Ask child/carer to hold container under ear to catch water. Pull ear upwards and backwards to straighten ear canal. Place tip of syringe at opening (no further than 8mm into canal) and spray water upwards into canal. Check after syringing to see if wax cleared.

[1]Cleaning the ear (dry mopping): roll a piece of clean soft tissue into a wick. Insert wick into ear with twisting action. Remove and replace with clean dry wick. Repeat until wick is dry when removed. Never leave wick or other object inside ear. The ear can only heal if dry. [2]If penicillin allergy (history of anaphylaxis, urticaria or angioedema), give azithromycin 10mg/kg (up to 500mg) once daily for 3 days instead (↩129:6). [3]If grommets (small tubes in eardrum) and purulent discharge persists > 2 weeks, discuss/refer.

Mouth and throat symptoms

Give urgent attention to the child with mouth and throat symptoms and any of:

- Unable to open mouth or swallow at all
- Red swelling blocking airway
- Sudden swollen lips/tongue and any of: generalised itchy rash, difficulty breathing, fainting/dizziness/collapse, abdominal pain/vomiting or exposure to likely allergen[1], check for **anaphylaxis** ↩112

Manage and refer urgently:

- Check fingerprick glucose ↩31.

Assess the child with mouth and throat symptoms not needing urgent attention

If problem with gums/teeth *or* if child < 3 years and drooling, consider teething ↩49. Examine mouth and throat for a red throat, white patches, blisters or ulcers.

Red throat
Pus or white patches on tonsils?

No
Any of runny nose, cough, hoarseness, conjunctivitis or diarrhoea?

Yes

Viral tonsillo-pharyngitis likely

- Give paracetamol 15mg/kg (up to 1g) 6 hourly as needed up to 5 days (↩133:27).
- Salt water gargle[2] may help.
- Explain that antibiotics are not necessary.

No

Bacterial tonsillopharyngitis likely

- Child may also have red rash, headache, abdominal pain, nausea and vomiting.
- Give paracetamol 15mg/kg (up to 1g) 6 hourly as needed for up to 5 days (↩133:27).
- Give either:
  - Single dose benzathine benzylpenicillin[3,4]: if < 30kg, give 600 000 units IM; if ≥ 30kg, give 1.2 million units IM or
  - Phenoxymethylpenicillin[3]: if < 30kg, give 250mg 12 hourly; if ≥ 30kg, give 500mg 12 hourly for 10 days.
- If red rash develops only after starting antibiotic, **glandular fever** likely.
  - Stop antibiotic. Reassure will resolve spontaneously.
  - Child may return to school when better but can only resume sporting activities > 3 weeks from onset of illness.
- If no better or worse after 5 days, review: assess and manage fluids ↩27, continue antibiotics and review again in 5 days. If still no better, refer.
- If ≥ 5 episodes per year or persistent snoring, refer to ENT.

Yes

Advise to return to immediately if any of the following develop: painful or swollen joint/s, strange movements of limbs or face, lumps over joints/tendons or rash (round lesions with pale centre) to exclude rheumatic fever ↩39.

White patches on cheeks, gums, tongue, palate, or cracks in corners of mouth.

Oral thrush/candida likely

- Give nystatin suspension 1mL 6 hourly after meal/feed for 7 days. Keep inside mouth for as long as possible.
  - If infant, advise carer to apply inside mouth with clean finger. If breastfeeding and nipple painful, apply clotrimazole cream to nipples after feed.
  - Continue both for 2 days after cure.
- Give paracetamol 15mg/kg (up to 1g) 6 hourly as needed for up to 5 days (↩133:27).
- If child on inhaled corticosteroids, use spacer and rinse mouth with water after use ↩52.
- If status unknown, test for HIV ↩105. If HIV positive, give routine care ↩106.
- If recurrent candida in child with a life-limiting illness, also give palliative care ↩123.

If difficulty/painful swallowing, refusing feeds, drooling or hoarse cry, **oesophageal candida** likely. Discuss/refer.

Groups of painful blisters on lips/mouth
Are blisters also on palms and soles?

No

Herpes simplex likely

- Apply petroleum jelly to blisters on outside of mouth to prevent spread.
- Give paracetamol 15mg/kg (up to 1g) 6 hourly as needed for up to 5 days (↩133:27).
- If ≥ 6 years old, apply thin layer of tetracaine 1% gel to blisters 6 hourly.
- If HIV or extensive herpes (and < 72 hours from onset), give aciclovir 20mg/kg (up to 800mg) 6 hourly for 7 days (↩128:1).
- Refer if extensive/recurrent or no better after.
- If status unknown, test for HIV ↩105.

Yes

Hand, foot and mouth disease likely

- Give paracetamol 15mg/kg (up to 1g) 6 hourly as needed for up to 5 days (↩133:27).
- Advise carer that it should resolve in 10 days.

Painful ulcer/s with central white patch

Aphthous ulcer/s likely

- Give paracetamol 15mg/kg (up to 1g) 6 hourly as needed for up to 5 days (↩133:27).
- Rinse with salt water[1] for 1 minute 12 hourly.
- If ≥ 6 years old, apply tetracaine 1% gel on ulcers 6 hourly until healed.
- If recurrent, consider HIV ↩105.
- Refer if large (> 1cm) or not healed within 3 weeks.
- If recurrent ulcers in child with a life-limiting illness, also give palliative care ↩123.

[1]Common allergens include medications, new food or an insect bite/sting within the last few hours. [2]Mix 1/2 teaspoon of salt in 1/2 cup of lukewarm water. [3]If penicillin allergy (history of anaphylaxis, urticaria or angioedema), give azithromycin 10mg/kg (up to 500mg) once daily for 5 days instead (↩129:6). [4]For benzathine benzylpenicillin 1.2 million units injection: dissolve benzathine benzylpenicillin 1.2 million units in 3.2mL lidocaine 1% without epinephrine (adrenaline).

Cough and/or breathing problems

The child with breathing problems may have noisy breathing, wheeze, grunting, snoring or stridor (noisy, high-pitched breathing). If child not breathing ⮌24.

- Baby < 2 months old
- History of apnoea (episodes of no breathing > 10 seconds)
- Unable to drink/feed
- Tires/sweats during feeds
- Lower chest indrawing

Give urgent attention to the child with:

- Nasal flaring
- Grunting
- Stridor
- Blue lips/tongue
- Sats ≤ 92%
- Restless or irritable
- Lethargy or decreased level of consciousness (⮌135)
- Sudden difficulty breathing and any of: generalised itchy rash, face/tongue swelling, fainting/dizziness/collapse, abdominal pain/vomiting or exposure to likely allergen[1], check for **anaphylaxis** ⮌112.

Manage and refer urgently:

- Give oxygen 2L/minute via nasal prongs. If < 1 year old with blocked nose, instil sodium chloride 0.9% solution 1 drop into each nostril and suction the nose.
- If wheeze →51 or if known heart problem →117.
- Check fingerprick glucose: if ≤ 3 or ≥ 11mmol/L ⮌31.
- Give ceftriaxone 80mg/kg (up to 1.5g) IV/IM (⮌129:7). If < 1 year old and HIV positive or unknown, also give single dose of co-trimoxazole (⮌130:13).
- If stridor, encourage carer to keep child calm.
  - Give prednisone 2mg/kg (up to 40mg). Give epinephrine[1] (1:1000) 1mL in 1mL sodium chloride 0.9% via nebuliser (oxygen 8L/minutes) every 15 minutes until stridor disappears.

Approach to the child with cough and/or breathing problems not needing urgent attention:

- If smoking in the house, alert to risks and encourage smoker to quit ⮌PACK Adult helpline.
- If recent episode of choking, **inhaled foreign body** likely. Refer same day.
- If current wheeze →51.
- If breathless on exertion, discuss/refer same day.
- If coughing attacks with "whoop" on breathing in, **pertussis** likely: give azithromycin 10mg/kg (up to 500mg) once daily for 5 days (⮌129:6), notify and isolate for 2 days.
- Ask about duration and number of episodes:

1 episode of cough and/or breathing problems lasting < 2 weeks

Is respiratory rate increased (⮌135)?

Yes

Pneumonia likely

- Give amoxicillin[3] 45mg/kg/dose (up to 1g) 12 hourly for 5 days (⮌128:3).
- If > 2 episodes/year needing hospital, do HIV test if status unknown, and refer/discuss non-urgently.
- Review after 2 days: if respiratory rate still increased (⮌135), refer.

No

Runny/blocked nose

Common cold likely

- Check ears ⮌45, throat ⮌47, nose ⮌46.
- Reassure carer antibiotics not needed.
- Advise to drink warm liquids to relieve symptoms.

Barking cough, may be hoarse

Viral croup likely

- Give single dose prednisone 2mg/kg.
- Advise to return immediately if worse or stridor develops.

Cough and/or breathing problems ≥ 2 weeks or repeated episodes

- If HIV status unknown, test for HIV ⮌105.
- Exclude TB ⮌100. While excluding TB consider other causes:

If recent common cold

- If wet cough ≥ 4 weeks, refer.
- If dry cough, **post-infectious cough** likely: should resolve by 8 weeks.

If blocked nose or noisy breathing worse at night and/or snoring ⮌46.

If known with long term health condition:

- Asthma ⮌114,
- Bronchiectasis ⮌116.
- Heart problem ⮌117.
- If life-limiting illness, also give palliative care ⮌123.

If repeated episodes of cough, wheeze, tight chest or difficulty breathing ⮌53.

Refer if cause uncertain or not growing well, chest deformity, cough > 8 weeks, coughs/chokes with feeds or cough worse despite treatment.

[1]Allergen can be an insect bite, ingesting medicine or new food in the last hour. [2]Epinephrine is also known as adrenaline. [3]If penicillin allergy (history of anaphylaxis, urticaria or angioedema), give azithromycin 10mg/kg (up to 500mg) once daily for 3 days instead (⮌129:6).

Recurrent respiratory symptoms

The child with recurrent respiratory symptoms has repeated episodes of cough, wheeze, tight chest or difficulty breathing.

Approach to the child with recurrent respiratory symptoms (or child with 1st episode wheeze *and* atopic background):
Exclude TB ⮌100. While excluding TB, ask about nature of cough (wet or dry) and difficulty breathing:

Recurrent dry cough, wheeze, tight chest or difficulty breathing

- If < 2 years old, **recurrent bronchiolitis** likely, manage as for bronchiolitis →52.
- If ≥ 2 years old, does child have 1 or more of:
  - History of eczema/allergic rhinitis
  - Parents with history of eczema/allergic rhinitis/asthma
  - > 3 episodes/year
  - Episode needing hospital admission
  - Symptoms worse at night and in early morning
  - Symptoms triggered by:
    - Smoking, pets, pollen
    - Perfume, paint, hairspray, cleaning agents
    - Change in weather or season
    - Exercise, emotion, laughter or stress

Recurrent wet (productive) cough ≥ 2 episodes/year

- If known **bronchiectasis**, give routine bronchiectasis care →116.
- Does each episode last ≥ 14 days?

Yes

- If status unknown, test for HIV ⮌105. If HIV positive, give routine HIV care ⮌106
- Arrange chest X-ray and doctor review: if TB excluded and cause uncertain, refer to specialist.

No

- If cough follows common colds, reassure carer this is due to common cold and will resolve on its own.
- If not growing well or cough lasts > 4 weeks, refer.

Yes (≥ 1 of above)

- Give a trial of treatment for 2 months:
  - Give budesonide 100mcg 12 hourly if ≤ 5 years old and 200mcg 12 hourly if > 5 years old *and*
  - Give salbutamol via spacer 100-200mcg (1-2 puffs) 6 hourly as needed.
- Demonstrate inhaler technique ⮌52.
- Encourage child/carer to identify and avoid triggers.
- Assess response to treatment after 2 months:

Symptoms improve with trial of treatment and worsen when treatment is stopped.

Asthma likely

- Give routine asthma care and start treatment →114.
- Refer to doctor within 1 month to confirm diagnosis.

Symptoms remain the same.

Refer to specialist.

No (none of above)
Are symptoms triggered by common colds?

Yes

Do symptoms persist for > 10 days after a common cold or are there symptoms between colds?

Yes

Does child have recurrent wheeze?

Yes

Recurrent virus-induced wheeze likely

- If wheeze is bronchodilator responsive[1] give salbutamol via spacer 100-200mcg (1-2 puffs) 6 hourly when needed for 5 days.
- Check ears ⮌45, throat ⮌47, nose ⮌46.

No

Refer to specialist.

No

[1]Wheeze improves 15 minutes after salbutamol via spacer 600mcg (6 puffs). If no better, child is not bronchodilator responsive.

Generalised red rash

Approach to the child with a generalised red rash

- Check throat. If red throat or white patches →47. If child has joint pain →66.
- If tick bite present (small dark brown/black scab) and temperature ≥ 38°C in last 3 days, headache, body pains and , **tick bite fever** likely →39.
- If < 1 week old and tiny red bumps progressing to pustules, **erythema toxicum** likely. Reassure carer this will resolve spontaneously within in 1 week.
- Is child taking any medication and did rash appear after medication started?

Yes
Drug reaction likely
Rash may be mild, patchy spots or widespread (like burns)

If any of:
- Temperature ≥ 38°C
- Shock (≥ 2 of: 1) cold hands/feet, 2) weak/fast pulse, 3) capillary refill > 3 seconds[1], 4) decreased level of consciousness)
- Difficulty breathing
- Face/tongue swelling
- Abdominal pain
- Extensive rash
- Vomiting/diarrhoea
- Blisters, peeling areas
- Jaundice
- Rash in mouth, eyes/ genitals

Give urgent attention →67

Approach to the child with a drug reaction not needing urgent attention
- If newly started on ART or TB treatment, discuss/refer.
- Stop all other medication and discuss/refer.
- Give cetirizine once daily until itch controlled/up to 2 weeks: 12-21kg: 5mg, ≥ 21kg: 10mg.

Not on medication or rash appeared before medication started.
Is temperature ≥ 38°C or fever in past 3 days?

Yes, does child have conjunctivitis, runny nose and/or cough?

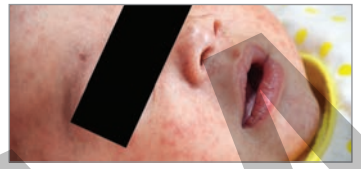
No

Reassure carer and advise to return if rash persists after 2 days.

Yes, did rash start on face and then spread to trunk and limbs?

No

Yes, **measles** likely



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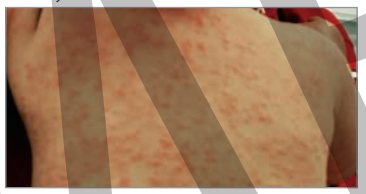


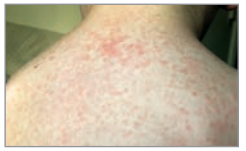
Give urgent attention to the child with measles and any of:
- Child < 6 months old
- Difficulty breathing
- Swelling of legs
- Wasting
- HIV
- TB
- Likely **meningitis** (≥ 2 of: temperature ≥ 38°C, headache, decreased level of consciousness, neck stiffness)
- Red, swollen/cracked lips or red tongue

Manage and refer urgently:
- Assess and manage child's fluid status ⮌27.
- If difficulty breathing ⮌50.
- If **meningitis** likely, give ceftriaxone 100mg/kg (up to 2g) IV/IM (⮌129:8).
- Give vitamin A: < 6 months old: 50 000IU, 6-12 months old: 100 000IU, ≥ 1 year old: 200 000IU.

Approach to the child with measles not needing urgent attention
- Notify and send clotted blood and throat swab (if available) to confirm diagnosis ⮌134.
- Isolate child for 5 days to prevent spread.
- If < 6 years old and no vitamin A in last month, give single dose vitamin A: < 6 months old: 50 000IU, 6-12 months old: 100 000IU, 1-6 years old: 200 000IU. Carer to give second dose the next day.
- Give paracetamol 15mg/kg (up to 1g) 6 hourly as needed up to 5 days (⮌133:27).
- Assess growth and check immunisations up to date ⮌12.
- Give close contacts ≥ 6 months old measles vaccination within 72 hours of exposure.
- Advise to return immediately if not better after 1 week.

Are there painful lymph nodes behind ears or back of head/neck?

No



Non-specific viral rash likely
- If red, swollen/cracked lips or red tongue, refer same day.
- Reassure carer that rash will resolve spontaneously.
- Give paracetamol 15mg/kg (up to 1g) 6 hourly as needed up to 5 days (⮌133:27).
- Advise to return to clinic if fever for > 3 days or rash persists > 1 week.
- If HIV-exposed, test for HIV ⮌105.

Yes

Rubella likely
- Isolate from pregnant women and keep home for 7 days after onset of rash.
- Give paracetamol 15mg/kg (up to 1g) 6 hourly as needed up to 5 days (⮌133:27).
- Reassure carer illness will resolve spontaneously.

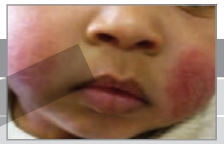
[1]Capillary refill time: hold hand/foot higher than level of heart. Press soft pad of finger/toe until it turns white, then release pressure and take note of time taken for colour to return.

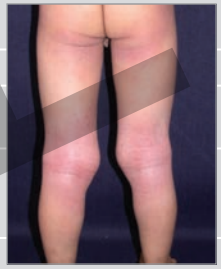
Eczema

The child with eczema has itchy, scaly skin which is usually red in the infant and dry in the older child. Affects inside of elbows, knees as well as cheeks, scalp and neck. Usually not in groin and axilla.

Assess the child with eczema: record child's condition and care plan in RtHB.

Assess	When to assess	Note
Routine care	Every visit	Integrate routine care into every visit ⮌12.
Control	Every visit	Any of the following indicate that the child's eczema is **not controlled**: • Skin is very itchy, thickened and scaly *or* there is increased redness and rawness • Symptoms interfere with sleep, school or sport
Adherence	Every visit	Check how often emulsifying ointment is being applied: if less than twice a day, educate on importance of frequent use for eczema control.
Infection	Every visit	• If skin oozing, crusting and scaly, **infection** likely. See treatment box below. • If crops of ulcers/blisters, **herpes simplex** likely ⮌47.
Other allergy	Every visit	• If purple rings around eyes, runny/blocked nose, mouth breathing, line across nose from repeatedly rubbing nose, **allergic rhinitis** likely ⮌46. • If ≥ 2 years old and recurrent dry cough/wheeze/tight chest/difficulty breathing, consider **asthma** ⮌53. • If after eating certain foods child develops increased redness/itchiness of eczema areas, consider **food allergy**, refer to specialist for allergy testing.
Triggers	Every visit	Ask about triggers and advise to avoid/limit: house dust mite, insect bites, animals in the home, pollen, cigarette smoke, mould, cockroaches, food (peanuts, eggs, milk, fish), soaps, detergents.





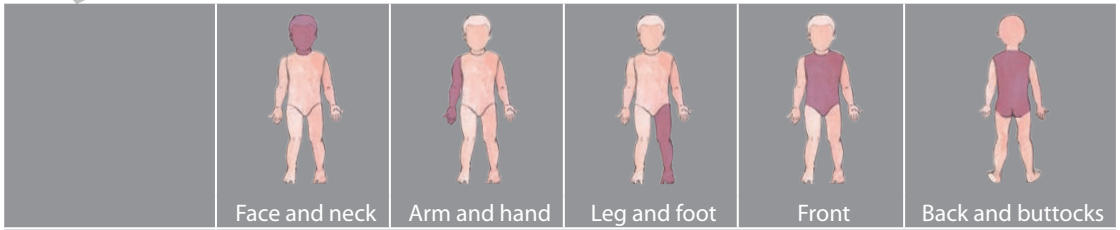
Advise the child and/or caregiver with eczema

- Advise carer that keeping the skin moisturised at all time is the key to improving eczema.
- Avoid scented creams/soaps/washing powder/perfumes.
- Avoid direct skin contact with woollen or rough clothes and overheating by blankets at night. Keep nails short and clean.
- When applying corticosteroid cream, apply a thin layer. See picture for amount to apply. Carer to avoid rubbing onto own palms.
- Wash daily to remove crusts and prevent infection.

One fingertip unit is the amount of cream/ointment squeezed from the tip of the index finger to the first crease.

Treat the child with eczema

- Always use aqueous cream instead of soap.
- Use emulsifying ointment as a moisturiser as often as possible (at least twice a day) and straight after bath.
- If eczema **not controlled** and adherent to above treatment, give hydrocortisone 1% cream twice a day (apply only to eczema patches, use very little on face and avoid near eyes) for 7 days and review:
  - If improved, continue treatment and review 3 monthly.
  - If no better, doctor to give betamethasone 0.1% cream twice a day (avoid face) for 7 days and review again: if still no response, discuss/refer to specialist.
- If severe itch, give chlorphenamine 0.1mg/kg (up to 4mg) 6 - 8 hourly or if mild, only at night (⮌130:12). If no improvement after 2 weeks, discuss/refer.
- If **infection** likely: use povidone-iodine scrub over infected areas, then wrap in povidone-iodine soaked gauze twice a day for one week. Also give cephalexin[1] 12-25mg/kg (up to 500mg) 6 hourly for 5 days (⮌129:9) and review in 7 days: if no better or temperature ≥ 38°C, discuss/refer to specialist.



Age	Number of fingertip units				
3 months -1 year old	1	1	1.5	1	1.5
1-3 years old	1.5	1.5	2	2	3
3-6 years old	1.5	2	3	3	3.5
6-10 years old	2	2.5	4.5	3.5	5

Adapted from Long C, C. and Finlay A. Y. The finger-tip unit - a new practical measure. Clinical and Experimental Dermatology, 1991; 16: 444-447.

[1]If penicillin allergy (history of anaphylaxis, urticaria or angioedema), give azithromycin 10mg/kg (up to 500mg) once daily for 3 days instead (⮌129:6).

Asthma

Once asthma diagnosed, ensure doctor confirms diagnosis within 1 month.

Assess the child with asthma: record child's condition and care plan in RtHB.

Assess	When to assess	Note
Routine care	Every visit	Integrate routine care into every visit ⮌12.
Asthma symptoms to determine asthma control	Every visit	• If wheeze/tight chest or difficulty breathing, not responding to salbutamol inhaler, manage acute exacerbation ⮌51. • Asthma **not controlled** if acute exacerbations frequent (≥ 3 in 3 months) *or* severe (hospitalised) *or* if in past 4 weeks any of: - Daytime cough, wheeze or difficulty breathing more than twice a week - Runs/plays less or tires easily due to asthma - Inhaled salbutamol needed more than twice a week - Night waking or night coughing due to asthma • If none of the above, then asthma **controlled**.
Symptoms	Every visit	Manage other symptoms as on symptom pages. If child is on inhaled budesonide, ask about sore mouth ⮌47.
Allergy	Every visit	Ask about other symptoms of allergy: if recurrent sneezing or itchy/running/blocked nose, watery/itchy eyes, itchy/dry skin or itchy, red, raised wheals ⮌112.
Adherence	Every visit	• Check that the child and/or carer can use inhaler and spacer correctly ⮌52. • Ensure child is adherent to treatment before adjusting or adding treatment.

Advise the child with asthma and/or carer

- If smoking in the house, alert to risks and encourage smoker to quit ⮌PACK Adult helpline.
- Demonstrate inhaler technique ⮌52. Ensure child/carer understand medication. Short acting beta-agonist (e.g salbutamol) only relieves symptoms and does not control asthma. Inhaled corticosteroid (e.g. budesonide) prevents but does not relieve symptoms. It is the mainstay of treatment.
- Recognise and manage acute exacerbation: if wheeze/tight chest or difficulty breathing, not responding to salbutamol inhaler, go to nearest casualty urgently.
- Encourage child/carer to identify and avoid triggers (e.g pets, smoking, paints, perfumes). Avoid aspirin and non-steroidal anti-inflammatories (e.g ibuprofen, diclofenac).

Treat the child with asthma

- Give influenza vaccination yearly.
- Give inhaled salbutamol 100-200mcg (1-2 puffs) 6 hourly when needed.
- If child has received prednisone (or hydrocortisone) for an acute exacerbation, continue prednisone 2mg/kg (up to 40mg) once daily for 5 days (avoid antibiotics as viral cause likely).
- Manage further according to control of asthma symptoms:

Asthma **not controlled**

- Before adjusting treatment ensure child adherent and can use inhaler and spacer correctly ⮌52.
- Give budesonide 100mcg 12 hourly if ≤ 5 years old and 200mcg 12 hourly if > 5 years old.
- If still uncontrolled after 3 months, arrange chest x-ray and doctor review.
- Doctor to increase budesonide to 200mcg 12 hourly if ≤ 5 years old and 400mcg 12 hourly if > 5 years old.

Review monthly. If still not controlled after 3 months, refer to specialist.

Asthma **controlled**

- Continue inhaled corticosteroid at same dose.
- If controlled for at least 3 months, decrease inhaled corticosteroids:
  - Half dose 12 hourly for 3 months.
  - Then decrease to a daily dose for another 3 months.
  - If still controlled, discontinue treatment. If symptoms recur, re-start treatment.

Review 3 monthly.

- If acute exacerbation not responding to prednisone within 2 days, refer.
- Advise to return before next appointment if symptoms suddenly worsen or do not respond to salbutamol inhaler.

Western Cape Government
Health

PACK
Practical Approach to Care Kit

About the Knowledge Translation Unit

The Knowledge Translation Unit is a health systems research unit in the University of Cape Town Lung Institute, committed to improving the quality of primary healthcare for underserved communities worldwide through practical tools, evidence-based implementation and engagement of health systems, their planners, providers and end-users.

www.knowledgetranslation.co.za

About the University of Cape Town Lung Institute

The University of Cape Town Lung Institute, established in 1998, is a company owned by the University of Cape Town that addresses priority health issues in society through education, research and service, with a special focus on lung health and Southern Africa.

www.lunginstitute.co.za

About the University of Cape Town

The University of Cape Town is a South African university founded in 1928, with a proud tradition of academic excellence and effecting social change and development through its pioneering scholarship, faculty and students.

www.uct.ac.za

About The Children's Hospital Trust

The Children's Hospital Trust funded the development and initial pilot of the PACK Child guide. The Children's Hospital Trust was established in 1994 to fundraise for the Red Cross War Memorial Children's Hospital – the first stand-alone tertiary hospital in sub-Saharan Africa dedicated entirely to children. The Trust is an independent, non-profit organisation that relies on the benevolence of donors to realise its aims. In 2011 the Trust expanded its fundraising reach beyond the Hospital's doors to impact more broadly on the quality of healthcare provided to children at other levels of the health services.

www.childrenshospitaltrust.org.za

Practical Approach to Care Kit

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20 Years