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Safe Prescribing Workshop

Dr Andrew Long
Vice President, Education, RCPCH
Consultant Paediatrician, Great Ormond Street Hospital

Outline

- Background
- Underlying issues
- Participant experience
- Strategies
- Discussion
- Further actions
- Conclusions
- Future suggestions

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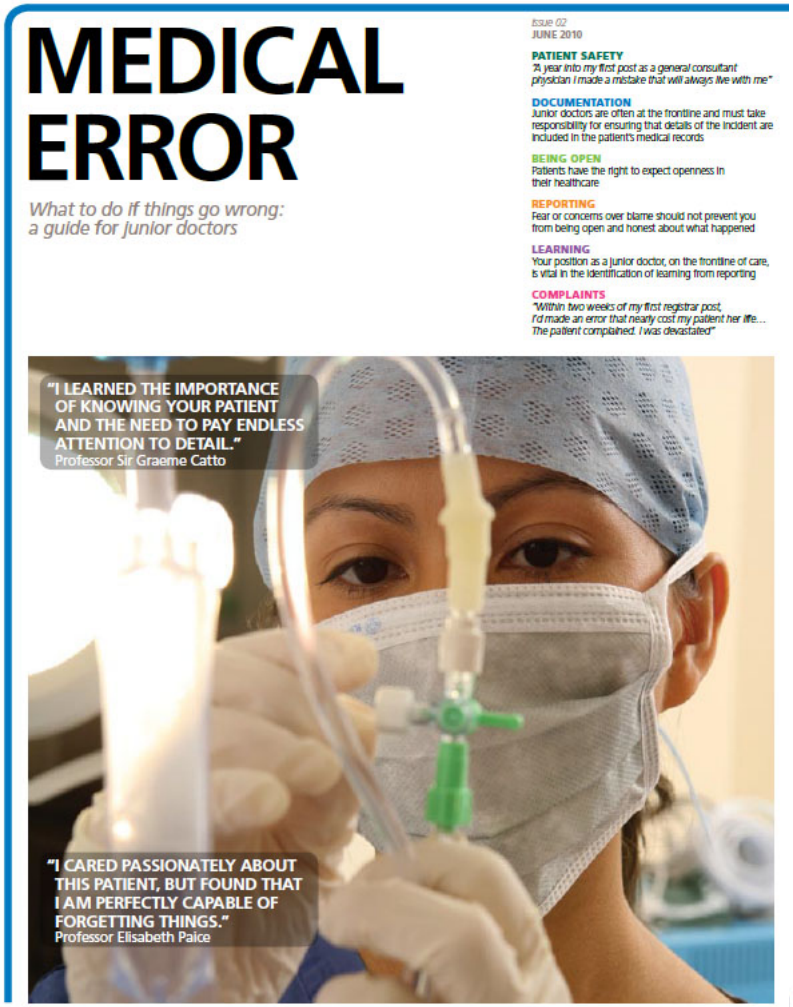
Prescribing Errors

- international problem
- patient safety issue
- complex causal relationship
- poorly understood
- damages training



Medication Errors in Children

Ian Chi Kei Wong

Head and Professor
Centre for Safe Medication Practice and Research
Department of Pharmacology and Pharmacy
University of Hong Kong

Global Research in Paediatrics – Network of Excellence (GRiP)

"A cheerful heart is good medicine, but a crushed spirit dries up the bones. (Proverbs 17:22)".

Literature review

Great variation in the paediatric medication error rates reported due to differences in study design

– prescribing error rate 0.45 to 30.1 errors per 100 orders in the USA

– drug administration error rates varied from 0.6% to 27%

Dosing errors are the most common type of errors in paediatrics (particularly 10-fold or greater overdose caused by calculation errors)

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What is your experience?

- personal...
- organisational
  - prescribing error
  - administration error
  - ‘near miss’ event
- what measures are in place to minimise risk?
- is this enough?

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How big is the problem in our hospital?

Results: 391 prescribing errors were identified, giving an overall prescribing error rate of **13.2% of medication orders** (95% CI 12.0 to 14.5). There was great variation in prescribing error rates between wards.

Incomplete prescriptions were the most common type of prescribing error, and dosing errors the third most common. **429 medication administration errors** were identified; giving an overall incidence of **19.1%** (95% CI 17.5% to 20.7%) **erroneous administrations**. Errors in drug preparation were the most common, followed by incorrect rates of intravenous administration.

Conclusions: Prescribing and medication administration errors are not uncommon in paediatrics, partly as a result of the extra challenges in prescribing and administering medication to this patient group. The causes and extent of these errors need to be explored locally and improvement strategies pursued.

l article

Chi lei

pic

ne to error.

t medication

er in children

[1] The School of Pharmacy, University of London, UK; [I] Department of Practice and Policy, The School of Pharmacy, University. of London, Mezzanine, BMA House, London, UK; [3] Centre for Medication Safety and Service Quality, Imperial College Healthcare NHS Trust, London, UK; [d] Centre for Paediatric Pharmacy Research, The School of Pharmacy, University of London & Institute of Child Health, University College London, London, UK

•Correspondence to Dr Malsoon A Ghaleb, Department of Practice and Policy, The School

nurses administering medications to these patients. Setting: 11 wards (prescribing errors) and 10 wards (medication administration errors) across five hospitals (one specialist children's teaching hospital, one non-teaching hospital and three teaching hospitals) in the London area (UK).

Main outcome measures: Number, types and

There have been no large-scale studies to investigate the incidence of prescribing and medication administration errors in the UK hence, the epidemiology of medication errors in the paediatric inpatient setting in the UK is unclear.

Clinical Responsibility

- Clinical Governance (patient safety) - Hospital Trust (organisation)
- standards of care – NHS
- training standards – Colleges
- trainee performance – Deaneries
- doctor indemnity – NHS and insurance

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RCPCH Curriculum

Curriculum for Paediatric Training General Paediatrics

Good Clinical Care — **Assessment Standard 12**

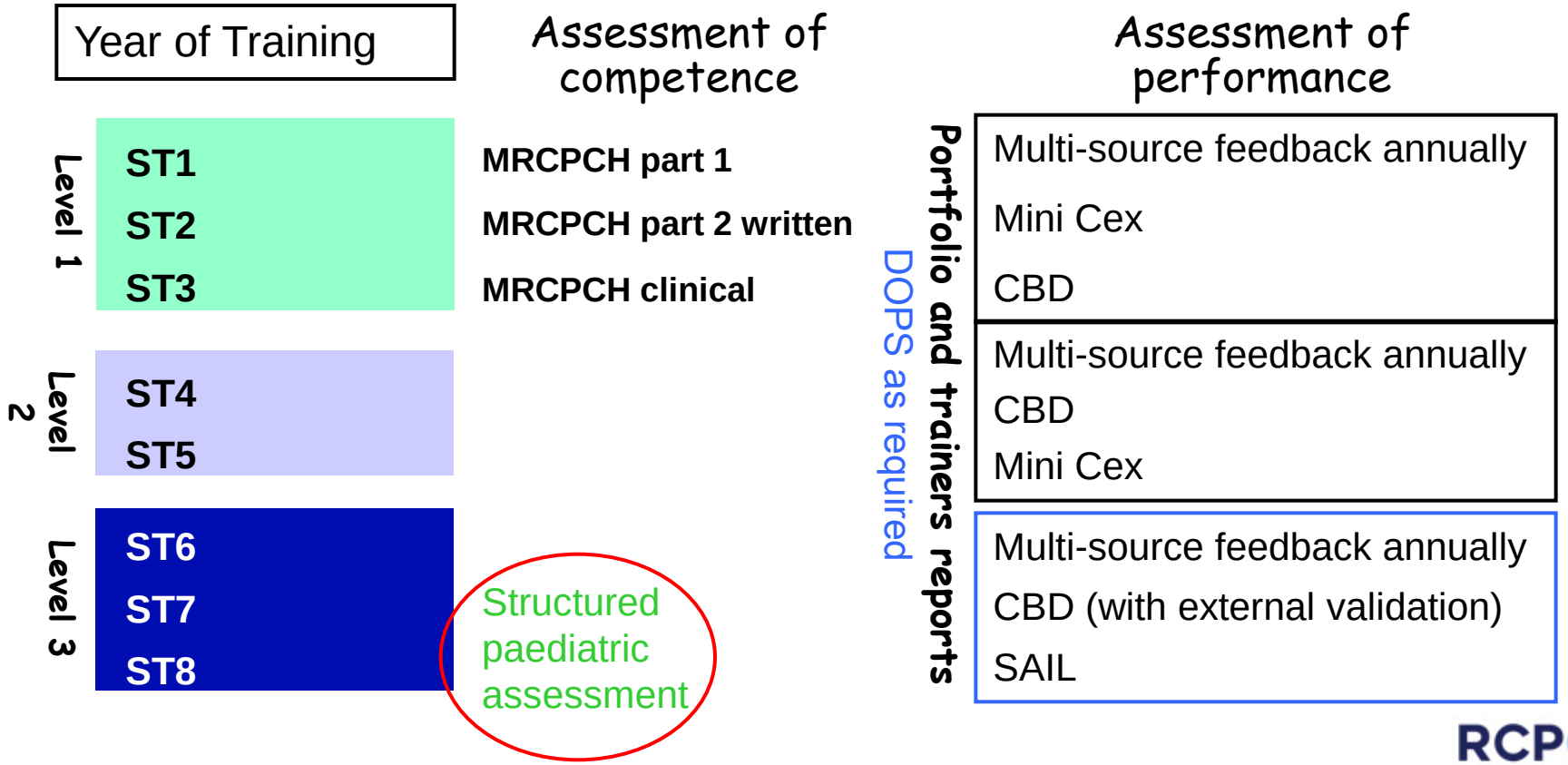
Knowledge, Skills and Performance

Standard 12

Level 1 (ST1-3) knowledge and skills in safe prescribing of common drugs in paediatrics	Level 2 (ST4-5) improving safe prescribing in paediatrics and in advising others appropriately	Level 3 (ST6-8) responsibility for safe prescribing in common and complex situations and for the supervision of others
Trainees will:		
Competencies		
Know and understand the pharmacological basis for treatments		
Be able to prescribe safely for the newborn and for children of all ages		Be able to prescribe safely and supervise the prescription for the newborn and for children of all ages
Know the approved indications and justification for prescribing drugs in common paediatric problems		
Know the pharmacokinetics and pharmodynamics of commonly prescribed drugs		
Know about the drug interactions of commonly used drugs		
Be aware of possible drug interactions of commonly used drugs where more than one drug is prescribed	know about drug interactions of commonly used drugs	be aware of different patterns of drug reaction and of the common precipitants of cutaneous drug reactions
Know how to report adverse affects	Respond appropriately to errors of prescription or administration and be able to talk to parents about this	be aware of how to appropriately investigate an adverse drug effect or prescription error
recognise serious drug reactions for example Stevens-Johnson Syndrome		
Know the risks of prescribing in the child-bearing years, in pregnancy and breast feeding mothers		
understand the principles of prescribing for newborn babies and breast feeding mothers	be able to prescribe for newborn babies and breast-feeding mothers	
Understand the principles of prescribing in children with renal function	be able to prescribe for children with reduced renal function using the BNF for children and understand when more experienced advice may be necessary	

Assessments: MRCPCH. CbD

RCPCH Assessment



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Prescribing Assessment

- entry to specialty training √
- part of induction process √
- completion of training (penultimate year) √
- sub-specialty training
- within workplace-based assessment
- if concerns about practice √

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1

2

Objectives of this session are

- To understand the importance of safe prescribing
- To become familiar with the local drug chart
- To learn how to prescribe for children

3

Why is prescribing important?

- Prescribing errors are common from all grades of doctors
- Many clinical incidents are due to prescribing errors
- Prescribing errors can be fatal
- Prescribing for children is different to prescribing for adults

4

Why is prescribing different in children?

Children are not small adults

Factors include:

- Body weight
- Body composition
- Surface area
- Nutritional status
- Organ maturation

5

We will cover the following

- Dose calculation based on age and weight
- Prescribe fluids
- Prescribe neonatal fluids

You will need to put your own trust name here. Throughout the presentation words that are highlighted red should be changed in accordance with local policies. The presentation should be as interactive as possible.

Paediatric Prescribing Summary

Don’t forget:

- Age
- Weight
- Show your calculations initially
- Always use local guidelines or BNFC to check doses
- Prescribe in dose rather than mls whenever possible
- If you are ever unsure, always ask for help from a senior colleague or pharmacist

Trust Assessment

Prescribing for Children- Assessment

Birmingham Children's Hospital

In order to be assured that new medical staff are competent in prescribing for children, the Trust has introduced this assessment tool. All new medical staff will be required to complete it on starting at Birmingham Children's Hospital. It has been endorsed by the Trust Medication Incident Group and Post Graduate Tutor. Please complete the following scenarios and return the assessment in the envelope provided by the 9th August 2010.

You may use the BNFc, and a calculator.

A summary of the Birmingham Children's Hospital prescribing guidelines are attached at the end of the document.

We estimate that the test will take you 30-45 minutes. There are 5 questions, some with 2 parts.

The results will be fed back to you and your educational supervisor. If you do not return the assessment by the above date it will be assumed that your score is zero and your educational supervisor and college tutor will be informed. No study leave will be granted unless the assessment is completed as agreed with Dr Clive Ryder and Dr Ritchie Marcus.

Name (print): _____

GMC number: _____

Email address: _____

Specialty at BCH: _____

Signature: _____

Educational usupervisor _____

We hope that you will also find this assessment useful as a learning tool. In addition we will be running a series of workshops to improve prescribing and minimise risks of medication errors which you are invited to attend. Dates will be posted on the intranet or you will be notified of the dates via the email address you have provided.

1.) It's 6pm: David Smith, of 28 Castle Road, Droitwich, is a 2 year old boy, you see in the ED with a chest infection. He weighs 15.4kg, DOB 1/6/2007, hospital number L112234Q.

BCH first line antibiotic is co-amoxiclav for community acquired chest infection.
His mum produces a bottle of phenobarbitone 50mg in 5ml and tells you that David takes 7.5ml at night. His mum confirms he is allergic to phenytoin, where his lips swell up. Please complete the drug chart for David in preparation for transfer to Ward 2 General Medical ward, which is happening in 30 minutes. (Answer continues on next page)

IN-PATIENT MEDICATION ADMINISTRATION RECORD

Birmingham Children's Hospital NHS
NHS Foundation Trust

Ward: .....
Consultant: .....

Hospital No: .....
Surname: .....
First Name: .....
Address: .....
.....
Age: .....
Date Of Birth: .....

Date of Admission	Weight kg	Height cm	B.S.A m^2

Drug Allergies
THIS SECTION MUST BE COMPLETED

YES
Specify Drugs .....
Specify Allergy Type .....
Signature ..... Designation ..... Date .....

NONE KNOWN
Signature ..... Designation ..... Date .....

MEDICATION ON SUPPLEMENTARY CHARTS SHOULD BE RECORDED ON THE DRUG CHART

For Multiple Medication Charts
Chart No. .....

Details of Supplementary Charts
TICK APPROPRIATE BOX

Anticoagulant	Start ☐ End ☐	Oxygen	Start ☐ End ☐
Supplementary Infusion Chart	Start ☐ End ☐	Patient Controlled Analgesia/Epidural	Start ☐ End ☐
Insulin	Start ☐ End ☐	Syringe Driver	Start ☐ End ☐
Other (please specify)			

PRESCRIPTION FOR ONCE-ONLY AND PRE-ANAESTHETIC MEDICATION

Date	Medicine (Approved Name)	Dose	Route	Time to be given	Prescriber's Signature	Pharmacy	Date	Time given	Given By	Checked By

IN-PATIENT MEDICATION ADMINISTRATION

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JOIN THE COLLEGE
More about membership of the College

CAREERS
PAEDIATRIC RECRUITMENT
QUALITY OF TRAINING
- ASSET (Assessment Services for Education and Training)
- Curriculum
- START
- ePortfolio
- College tutors and training
- Committees for Education & Training
- Educational supervision
- GMC Consultation
- Paediatric Prescribing Tool
- Post and Programme Approval Process
- Special Study Modules
- Simulation and Technology Enhanced Learning

COLLEGE REGISTRATION FOR TRAINING
EXAMINATIONS
EXAMINER
EDUCATION AND TRAINING UPDATES
GENERAL TRAINEE SUPPORT CENTRE
TRAINEE REPRESENTATION
EDUCATION AND TRAINING CONTACTS
ACADEMIC PAEDIATRIC TRAINING
LESS THAN FULL-TIME TRAINING
CERTIFICATION (CCT & CESR)
CONTINUING PROFESSIONAL DEVELOPMENT (CPD)
PROFESSIONAL DEVELOPMENT TRAINING

Paediatric Prescribing Tool

Introduction

The Paediatric Prescribing Tool (PPT) has been developed as a rapid response to recent critical incidents of gross prescribing errors affecting children. A small working party of members of Royal College of Paediatrics and Child Health (RCPCH) and Neonatal and Paediatric Pharmacists Group (NPPG) created the tool based on best practice and other similar tools in current use.

PPT was pilot tested by approximately 40 prescribers of different grades in five Trusts. In the medium term an education package and more sophisticated tool are in development. This tool is part of a portfolio of prescribing resources available or in development at RCPCH.

Since Clinical Governance responsibility for safe prescribing rests with each Trust,
the College recommends that local guidelines are established to determine the capacity of each individual to prescribe safely based on the outcomes from the prescribing assessment.

Teaching Presentation

The presentation below has been designed to allow you to introduce safe prescribing procedure to your trainees. A commentary explaining each slide is given in the note field on each slide. You can full customise the slides to include your own trust name and details.

Paediatric Prescribing Tool

(Please note that this presentation was kindly put together by the London Deanery and they are happy for others to use and amend it, however please do acknowledge the London Deanery as the original source of this work)

Purpose

PPT is intended to alert supervising consultants that one of their staff needs extra support for paediatric prescribing. The charts should be marked locally and the results fed back to the doctors taking the test. A suggested assessment scheme is attached highlighting entries that the RCPCH/NPPG group feel are "Essential" and those that are "Desirable". Pilot testing indicated a wide variety of responses suggesting that whilst some entries are absolutely mandatory, others can be viewed more flexibly.

Methods

Pilots suggest it takes 20 minutes to complete, and 5-10 minutes to mark. The prescriptions should be made on a local Trust drug chart (as these vary between different hospitals).

ASSOCIATED PUBLICATIONS, RESOURCES AND LINKS

Mapping services
We are currently mapping the UK in order to provide a pragmatic network of tertiary and secondary level services. We ...

RCPCH publications
The RCPCH produces a range of publications for RCPCH members, other health professionals and the public. College ...

Epilepsy12 National Audit
This national three-year audit, funded by the Health Quality Improvement Partnership (HQIP), aims to help improve ...

Methodology and data collection
Project Methodology The Epilepsy12 national audit comprises three components: service descriptor, clinical audit ...

Epilepsy12 FAQs
Project Background What are the aims of the audit? Which services in the UK are eligible to ...

Stakeholder organisations
The following organisations have registered as project stakeholders or are partners in the National Epilepsy Audit: ...

http://www.rcpch.ac.uk/training-examinations-professional-development/quality-training/paediatric-prescribing-tool/paediatr

Paediatric Prescribing Assessment Tool (PPT)

Paediatric Prescribing Tool: Scenarios

Scenario 1

Name *John Smith* *Age 7 years* *DOB 04/01/2004*
Today's Weight *23Kg*
Address *27 Station Road, New Town, Middlesex M2 5MT*
Hospital Number *531947*
Consultant *Dr Horne* *Ward G2*
Admission date *Use today's date*

John has been admitted with suspected appendicitis, his temperature is 38°C. Mum explains that the last time he had amoxicillin he developed a rash. She also tells you he suffers from asthma and uses a Budesonide (Pulmicort) inhaler (100 microgram per puff) 2 puffs twice a day via spacer. He also uses, as required, a Salbutamol inhaler (100 microgram per puff) 1-2 puffs via spacer up to a maximum of four times a day.

1. Write up his drug chart based on the history above.
2. Write up regular oral paracetamol, using the 250mg/5ml suspension at a dose of 15mg/kg, rounding to a measurable dose and given 6 hourly.

A decision is made to take him to theatre; he needs intravenous maintenance fluids as he is nil by mouth.

3. Use the current BNFC (Fluids, parenteral) to prescribe the correct volume of maintenance fluid as Sodium Chloride 0.9% for the first 6 hours. No additives are required for this patient.

Post operatively, John develops severe pain and at 1800 hours you are asked to prescribe some analgesia.

4. Use the current BNFC to write up a single intravenous dose of Morphine, to be given immediately.

Paediatric Prescribing Tool: Assessors' Sheet - Scenario 1

Demographic details

Category	Answer	Suggested requirement
Demographic details	Name	Essential
	Date of Birth	Desirable
	Hospital Number	Essential
	Weight	Desirable
	Demographic details completed on each page, date of weight, ward, date of admission & Consultant	Desirable

Allergy:

Allergy box	Penicillin or Amoxycillin	Essential
	Rash, signature	Desirable

Budesonide:

Drug	Budesonide (or Pulmicort)	Essential
Dose	200 micrograms/2 x 100 micrograms/2 puffs or actuations	Essential
Route	Inhaled (may not be necessary if dose specified in "puffs")	Desirable
Frequency	Twice daily/bd /12 hourly	Essential
On chart	On "Regular meds" part of chart	Essential
Signature	Signature	Essential
Indication	Asthma or Wheeze	Desirable
Extra instructions	Bleep number, identifier and printed name	Desirable

Salbutamol:

Drug	Salbutamol (or Ventolin)	Essential
Dose	100 micrograms or 1-2 puffs or actuations	Essential
Route	Inhaled (may not be necessary if dose specified in "puffs")	Desirable
Frequency	Maximum 4 hourly &/or specify maximum dosage	Essential
On chart	On "As Required" part of chart	Essential
Signature	Signature	Essential
Indication	Asthma or Wheeze	Desirable
Extra instructions	Bleep number, identifier, printed name & via Spacer device	Desirable

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London experience

- 114 trainees entering ST1 training
- attended 1 day induction programme
- safe prescribing teaching included
- PowerPoint in small group format
- initial evaluation positive
- e-survey (QuestionPro) after 5 months

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Electronic Survey results

- 86% response rate overall
- 90% previous paediatric prescribing experience
- 50% had no prior paediatric prescribing training
- 25% no assessment previously, 40% adult only
- 70% training relevant and aided practice
- 55% further site specific training
- 25% prescribing skills assessed locally
- 38% prescribing errors

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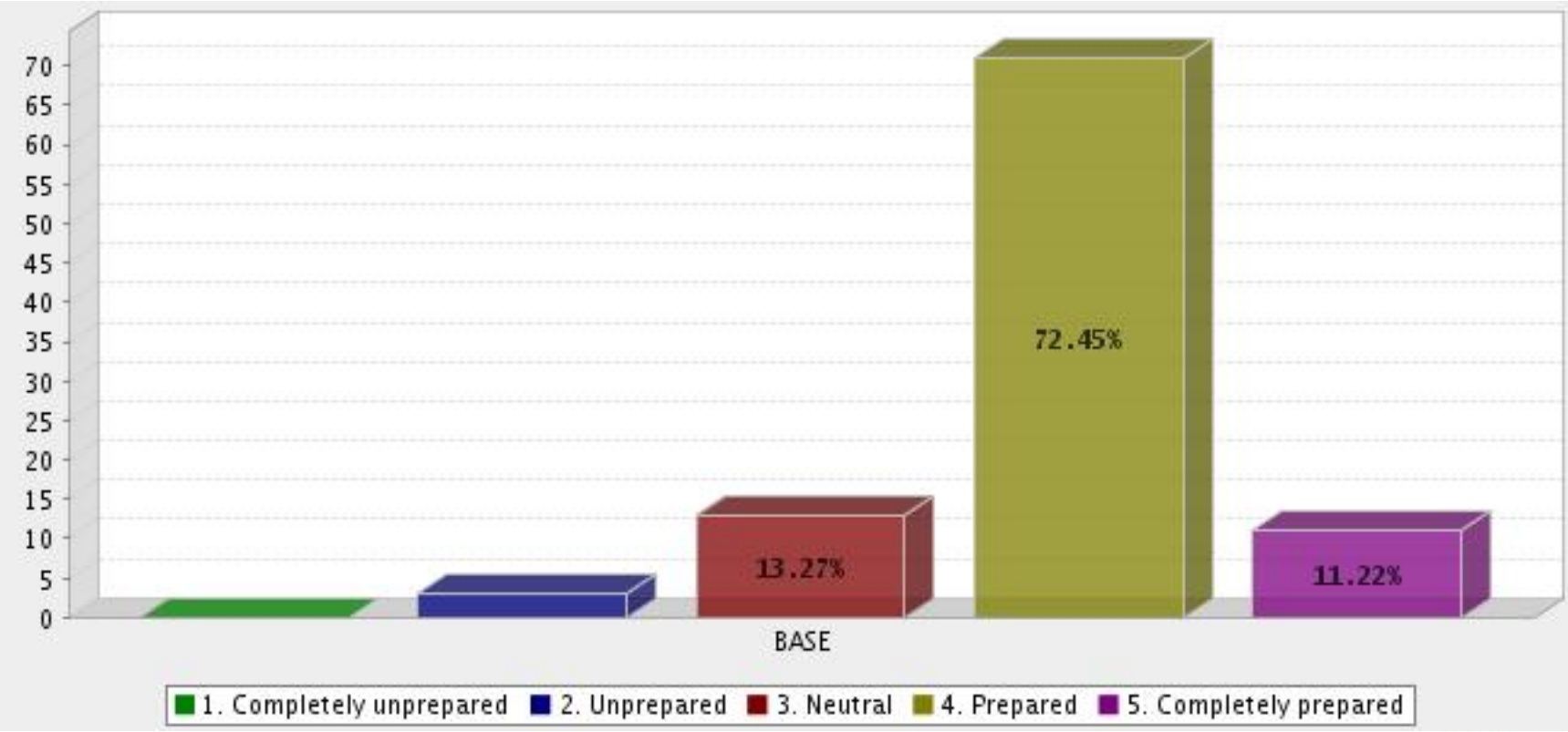
Did you feel prepared to take on the responsibility of prescribing in ST1



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Why is paediatrics so different?

- unlicensed & off label drugs
- age band
- weight based prescribing
- gestation based prescribing
- dose rounding
- indication based prescribing

Possible Interventions

Tutor experiences

- is it part of your role/responsibility?
- what approach has your department/Trust taken?
- is there anything that you do routinely?
- what does your institution require to demonstrate safe practice?
- have you introduced any additional measures?

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Paediatric medication error (PME): the nature of the problem in the UK and what works to address it – a systematic review

Katy Sutcliffe - September 2014

Research

Initial aim: To identify research evidence and describe the research field in relation to Paediatric Medication Error (PME)

Design: Systematic Review - to provide a comprehensive and unbiased account of research evidence on PME

3 questions for in-depth analyses:

'What is the nature and extent of PME in the UK?'

'What works to reduce the incidence of PME?'

'What are key features of effective interventions?'

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PME in UK: Findings

Strong Evidence

- **primary care:** off-label prescribing resulting in dose errors common (1 in 4 children Ekins Daukes 2004) - wide range of drugs
- Type of drug/age of patient affects whether underdoses or overdoses more likely to be prescribed

Promising Evidence

- **acute care** - dose errors most common error type - account for approx. 1/5 of all errors

Evidence Gaps

- reporting voluntary & inconsistent – inaccurate picture

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What works to reduce PME?

Multiple studies on 3 intervention types

- Electronic prescribing (EP)
- Clinical decision support tools (CDST)
- Education

Single studies on 6 intervention types

- Ward based pharmacist support
- Paediatric formulation
- Pre-printed structured prescription order forms
- Integrated care pathways
- Mass concentration labelling
- Patient history taking

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Paediatric Prescribing Principles - 3. Prescribing in Paediatrics

Resources | Glossary

Menu

Search...

E-learning to optimise health

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Paediatric Prescribing Principles - 3. Prescribing in Paediatrics

Resources | Glossary

Why is it important to learn about this subject?

3/29

Now read this quote and refer to the diagram opposite which reflects it's message. When you are ready click the Forward

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Paediatric Prescribing Principles - 3. Prescribing in Paediatrics

Resources | Glossary

The benefits and risks of electronic prescribing

16/29

Screen 1 | Screen 2 | Screen 3 | Screen 4

X

POE - Prescriber Order Entry

MRA

Consultant DR X Ward PAED OBS

Hospital No. Nat. No. Date of Birth 17-Oct-2011 Age 17 mths

Allergies ***No Known Drug Allergies***

Details

Active Medications | Discontinued Medications

Status	Drug Name	Dose	Frequency
			Regular Medications
R	AZITHROMYCIN 200 mg in 5mL Suspension	**100 mg**	E24H - every 24 hours
P	PREDNISOLONE 5 mg SOLUBLE Tablets (as sodium	**20 mg**	1XD AM - ONCE a DAY ir
			As required (PRN) Medicatio
C	IBUPROFEN 100 mg in 5mL Sugar-Free Suspension	**90 mg**	3XD AMLUON - THREE ti
I	IPRATROPIUM BROMIDE 20 micrograms per metere	**1 puff(s)**	E4H - every FOUR hours F
T	IPRATROPIUM BROMIDE 500 micrograms in 2mL Re	**250 microgram**	E4H - every FOUR hours F
S	PARACETAMOL 250 mg in 5mL Suspension	**150 mg**	E6H - every SIX hours PRI
	SALBUTAMOL 2.5 mg in 2.5mL Respirator Solution	**2.5 mg**	E30MIN - every 30 minute
	SALBUTAMOL 100 mcg MDI Aerosol Inhaler	**10 puff(s)**	E30MIN - every 30 minute

Menu

3. Prescribing errors in paediatrics
3.1. Why do prescribing errors occur?
3.2. Individual versus processing errors
3.3. Common prescribing errors
3.4. Serious and potentially lethal drug...
3.5. Case study
3.6. The benefits and risks of electroni...
3.7. Methods to minimise prescribing e...
3.8. How to improve your prescribing
3.9. How to avoid errors in dosage
3.10. Improving prescribing in your de...
3.11. Case study - Oliver James (Part 1)
3.12. Case study - Oliver James (Part 2)
3.13. Case study - Oliver James (Part 3)
3.14. Case study - Oliver James (Part 4)
4. Summary and references
4.1. Summary
4.2. Additional information
4.3. References
4.4. Copyright notice
4.5. Support services

Search...

PREV | FORWARD

toxicity

RCPCH Strategy

- curriculum review– [undergraduate curriculum]
- ST selection
- prescribing e-learning materials
- assessment
  - PPT (Paediatric Prescribing Tool)
  - MRCPCH
  - ?prescribing mini-CEX/CbD
  - START
- Safe Medicines Network
- Paediatric Care Online project
- ePrescribing development

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pediatric care online

Prepared for Your Next Patient

An integrated point-of-care solution that delivers quick, reliable pediatric information for your every day clinical needs.

Find Information

LIBRARY

- Point-of-Care Quick Reference
- AAP Textbook of Pediatric Care
- Red Book
- Bright Futures
- Performing Preventive Services
- Pediatric Drug Lookup
- Antimicrobial Therapy Guide
- Visual Library
- Webinars
- Pediatric Care Updates
- AAP Policy

TOOLS

- Interactive Periodicity Schedule
- Signs & Symptoms Search
- Algorithms
- Patient Handouts
- Forms & Tools
- Clinical Calculators
- Medline

Search

codeine

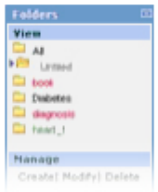
Search PCO Search Tips

Pediatric Care Updates

- Caregiver-Fabricated Illness in a Child: A Manifestation of Child Maltreatment
- Clinical Practice Guideline for the Diagnosis and Management of Acute Bacterial Sinusitis in Children Aged 1 to 18 Years
- Defining Pediatric Malnutrition: A Paradigm Shift Toward Etiology-related Definitions

More...

myPCO

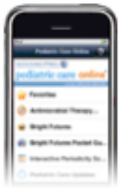


Customize your *Pediatric Care Online* experience:

- Create bookmarks to favorite topics for quick reference
- Archive your searches
- Manage your AAP account

Go to myPCO...

Mobile



Access *Pediatric Care Online* on the go:

- Access PCO wirelessly via mobile Web browsers.
- Select content for download to your handheld device.

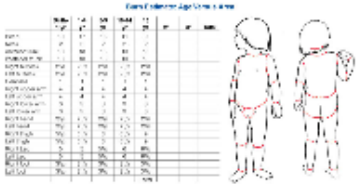
Go to Mobile...

News

- New Updates and Content on PCO!
- Free PCO Webinar: Differentiating GER from GERD: To "D" or not to "D"
- PCO App and iOS 7
- More...

Sign up for eAlerts

Image of the Week



Burn chart for estimating the extent of injury (...)
Details

Search Results

codeine | Search | Search Tips

found in:

- Pediatric Drug Lookup (100)
- AAP Policy (6)
- Point-of-Care Quick Reference (10)
- AAP Textbook of Pediatric Care (20)
- Medline (6,888)

Results for:
codeine

Codeine - Alerts | more...
Health Canada Recommends the Use of **Codeine** Only in Patients Aged 12 and Older June 2013 Health Canada has issued notice that the use of **codeine** products in children associated ...

Promethazine and Codeine - Basics | more...
Codeine and Promethazine ...

Promethazine, Phenylephrine, and Codeine - Basics | more...
Codeine , Phenylephrine, and Promethazine - Phenylephrine, Promethazine, and **Codeine** ...

Acetaminophen and Codeine - Basics | more...
International issues: Codex: Brand name for acetaminophen/**codeine** [Brazil], but also the brand name ... and **Codeine** - Tylenol® with **Codeine** No. 3 - Tylenol® with **Cod**

Guaifenesin and Codeine - Basics | more...
Terms - **Codeine** and Guaifenesin ...

Use of Codeine- and Dextromethorphan-Containing Cough Remedies in Children
Use of **Codeine** - and Dextromethorphan-Containing Cough Remedies in Children -- Committee on Drugs 99 (6): 918 -- AAP Policy Use of **Codeine** - and Dextromethorphan- have similar adverse effects, and have ...

Dextromethorphan - Additional Information | more...
Dextromethorphan 15-30 mg equals 8-15 mg **codeine** as an antitussive ...

Iodine - Basics
Medication Safety Issues Sound-alike/look-alike issues: Iodine may be confused with **codeine** , Iopidine®, Lodine Generic Availability (U.S.) Yes Therapeutic Category ...

Paregoric - Pharmacology
and as parent compound (morphine, **codeine** , papaverine, etc) ...

Chapter 167: Cough - Suggested Resources | more...
Suggested Resources - American Academy of Pediatrics, Committee on Drugs. Use of **codeine** - and dextromethorphan-containing cough remedies in children. Pediatrics. 199 Pediatrics ...

Chapter 250: Common Cold - AAP Policy Statement
AAP Policy Statement - American Academy of Pediatrics, Committee on Drugs. Use of **codeine** - and dextromethorphan-containing cough remedies in children. Pediatrics. 199

Chapter 54: Management of Acute Pain in Children - Role of Weak Opioids | more...
such as **codeine** , tramadol, oxycodone, or hydrocodone for the outpatient treatment of moderate pain or when NSAIDs alone fail to control mild pain. A hepatic microsomal to morphine, and in 36 ...

Conclusions

- paediatric prescribing is clinical risk area
- competence is clinical governance issue
- Hospitals should assess readiness
- Schools should focus on training/support
- College should make tools available for assessment (PPAT/DOPS etc)
- national requirement for ePrescribing/CDST

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Any questions?