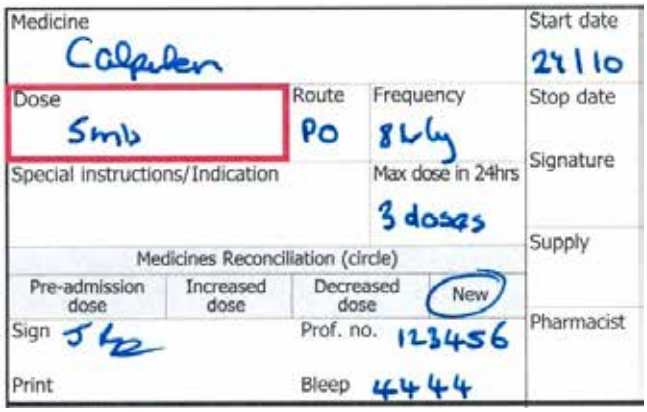
Curiositas (paediatric)

In this edition of the Ulster Medical Journal, Curiositas takes a paediatric perspective on a range of interesting clinical scenarios.

PATIENT SAFETY

Can you identify five errors in this paediatric prescription?



Dr Eamonn Sweeney (Paediatrics ST2), Mr Joe McCann (Paediatric Pharmacist) and Dr Thomas Bourke (Consultant Paediatrician), Royal Belfast Hospital for Sick Children, Belfast, Northern Ireland.

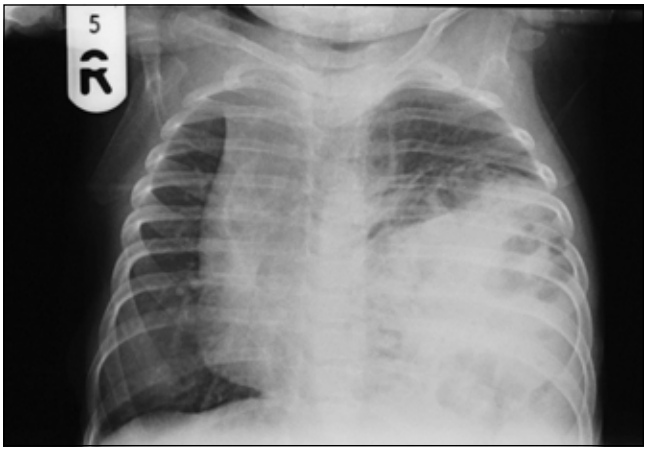
HISTORICAL QUIZ

What is the title of this sculpture and where is it located?

Dr Andrew Thompson (Consultant Paediatrician) and Dr Thomas Bourke (Consultant Paediatrician), Royal Belfast Hospital for Sick Children, Belfast, Northern Ireland.

POSTGRADUATE QUIZ

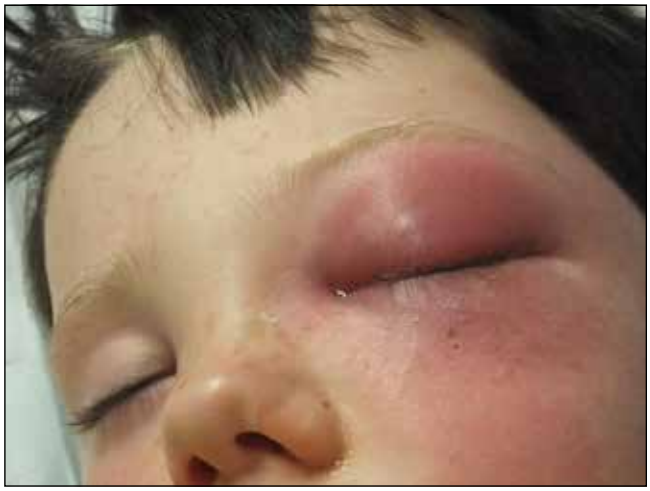
This nine month old presented with respiratory distress. A chest x-ray was performed.



1. What is the diagnosis?
2. How could you confirm the diagnosis and what would your management be?

Dr Caroline Hart (Paediatric ST6), Dr Roisin Bainbridge (Paediatric ST1) and Dr Andrew Thompson (Consultant Paediatrician), Royal Belfast Hospital for Sick Children, Belfast, Northern Ireland.

MEDICAL STUDENT QUIZ



1. What is the likely diagnosis?
2. What are the key clinical features to elicit in a patient presenting with this condition?
3. What is the imaging modality of choice?

Jennifer Thompson (4th Year Medical Student, Queen's University Belfast), Dr Julie-Ann Maney (Consultant Emergency Paediatrician), Royal Belfast Hospital for Sick Children, Belfast, Northern Ireland.

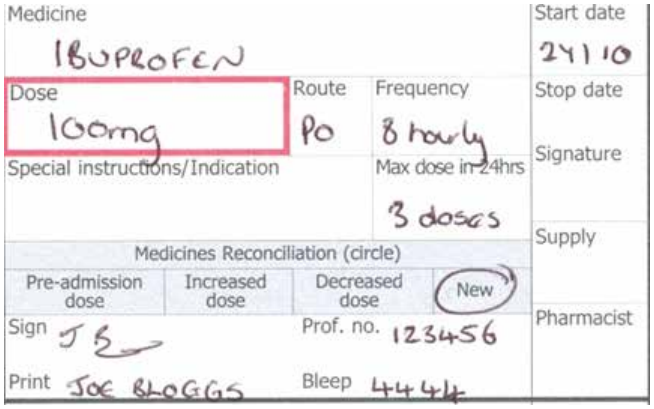
ANSWERS See overleaf

CONSIDER CONTRIBUTING TO CURIOSITAS?
Please refer to '*Curiositas: Guidelines for contributors*' http://www.ums.ac.uk/curiositas.html and email *umj@qub.ac.uk* with your ideas and submissions.

CURIOSITAS: ANSWERS

PATIENT SAFETY

1. All drugs must be prescribed generically.
2. Drug names must be written in capitals.
3. Prescriptions should be completed in black ink.
4. Acceptable abbreviations are 'g' for grams or 'mg' for milligrams. Micrograms, nanograms and units must not be abbreviated. Do not prescribe suspensions by volume (with the exception of combination preparations). If prescribing by volume always specify the concentration required E.g. CO-AMOXICLAV 5 mLs of 125/31 suspension.
5. Signatures must be accompanied by name in print.



Drug prescription and administration errors are the commonest error in medical practice, and are more common in paediatrics. Strict adherence to local prescribing policies, taking great care when making calculations, and double checking are the corner stones of safe prescribing.

Dr Eamonn Sweeney (Paediatrics ST2), Mr Joe McCann Paediatric (Pharmacist) and Dr Thomas Bourke (Consultant Paediatrician), Royal Belfast Hospital for Sick Children, Belfast, Northern Ireland.

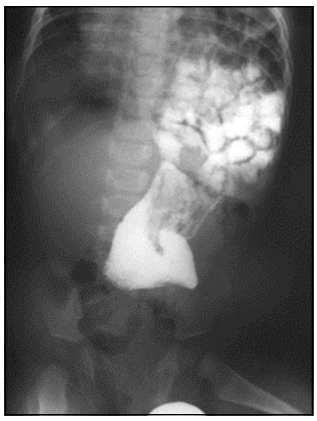
HISTORICAL QUIZ

This is The Little Philosopher by Rosamund Praeger. A Praeger bronze replica sculpture was commissioned by the Royal Belfast Hospital for Sick Children Medical Staff from the Ulster Museum in October 1972 as part of the Hospital's centenary celebrations the following year. It currently resides in the small atrium at the original entrance to the Children's Hospital. The daughter of a Dutch emigrant who worked in the Belfast Linen Trade, Rosamund Praeger was a local sculptor born in 1867 in Holywood, County Down. The original Philosopher was exhibited at the Royal Academy in 1913, but now resides in the Colorado Springs Museum after it was purchased by an American Collector. Rosamund Praegar died in 1954 and permission was sought and granted from the late artists Estate to use the sculpture as a motif for the hospital by the Hospitals Centenary Committee in 1973.

Dr Andrew Thompson (Consultant Paediatrician) and Dr Thomas Bourke (Consultant Paediatrician), Royal Belfast Hospital for Sick Children, Belfast, Northern Ireland.

POSTGRADUATE QUIZ

1. The diagnosis is a late presentation of a congenital diaphragmatic hernia (CDH). CDH occurs in around 1 in 3000 live births[1]. The majority of cases are diagnosed antenatally by ultrasound, or present shortly after birth with severe respiratory distress. Fewer than 3% of cases present outside the neonatal period with a milder variant as in this case[2].These children may be completely asymptomatic or display non-specific respiratory or gastrointestinal symptoms. In general, right sided hernias cause respiratory difficulties predominantly, while left sided defects cause a mixture of gastrointestinal and respiratory symptoms[2].



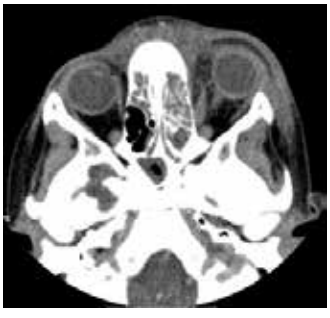
2. Diagnosis of late presenting CDH is difficult. Many are incorrectly labelled as pneumonia, pneumothoraces or congenital lung cysts[3] resulting in morbidity through incorrect management[2]. There is no definitive diagnostic test. In this case, an upper GI contrast study confirms herniation of loops of small bowel into the left hemithorax with no mediastinal shift. In some cases, MR or CT imaging is useful to delineate the anatomy[3,4]. Initial management requires insertion of a nasogastric tube to relieve obstruction. Definitive management involves surgical correction of the defect[2].

Dr Caroline Hart (Paediatric ST6), Dr Roisin Bainbridge (Paediatric ST1) and Dr Andrew Thompson (Consultant Paediatrician), Royal Belfast Hospital for Sick Children, Belfast, Northern Ireland.

1. *Sridhar AV, Nichani S. Late presenting congenital diaphragmatic hernia. Emerg Med J 2004; 21: 261-2.*
2. *Congenital Diaphragmatic Hernia Study Group. Late-presenting congenital diaphragmatic hernia. J Pediatr Surg 2005; 40: 1839-43.*
3. *Hamid R, Baba AA, Shera AH, Wani SA, Altaf T, Kant MH. Late-presenting congenital diaphragmatic hernia. Afr J Paediatr Surg 2014; 11: 119-23.*
4. *Kesieme EB, Kesieme CN. Congenital Diaphragmatic Hernia: Review of Current Concept in Surgical Management. ISRN Surg 2011; 2011: 974041 doi: 10.542/2011/947041.*

MEDICAL STUDENT QUIZ

1. The likely diagnosis is periorbital cellulitis, an infection of the eyelid and periorbital soft tissues, commonly caused by Staphylococcus aureus, Staphylococcus epidermidis or Streptococcus species.
2. Careful ocular assessment is essential to elicit signs of orbital cellulitis which can be a sight threatening emergency. Worrying features include proptsis, loss of vision, pain on eye movement or an afferent pupillary defect (suggesting compression of the optic nerve)



3. CT is the imaging modality of choice. Investigations should also include culture of conjunctival discharge and blood culture. Prompt treatment with intravenous antibiotics is indicated.

Jennifer Thompson (4th Year Medical Student, Queen's University Belfast), Dr Julie-Ann Maney (Consultant Emergency Paediatrician), Royal Belfast Hospital for Sick Children, Belfast, Northern Ireland. The authors would like to thank the patient (and their parent) who gave consent for this image to be published.