Paediatric Pearls

September 2016

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Previous editions are all available at www.paediatricpearls.co.uk

Diabetes (type 1 and type 2) in children and young people: diagnosis and management

NICE guideline [NG18] Published date: August 2015

Part 1 – **DIAGNOSIS:** Type 1 and 2 diabetes is becoming more common in the UK. The 2013–14 National Diabetes Audit identified 26,500 children and young people (CYP) with type 1 diabetes and 500 with type 2. Although general care of both types of patients is similar, the initial management is different. If in doubt, treat all diabetes as type 1 in the first instance and refer all cases of new onset diabetes to emergency paediatric care.

Be aware that the characteristics of type 1 diabetes in children and young people include:
- hyperglycaemia (random plasma glucose more than 11 mmol/litre)
- polyuria
- polydipsia
- weight loss
- excessive tiredness. **[2004, amended 2015]**

Diabetes resources: http://www.diabetes.co.uk/ and https://www.diabetes.org.uk/

Refer children and young people with suspected type 1 diabetes immediately (on the same day) to a multidisciplinary paediatric diabetes team with the competencies needed to confirm diagnosis and to provide immediate care. **[2004, amended 2015]**

PEWS stands for Paediatric Early Warning Score.

First devised to try and pick up young in-patients who might need the intensive care team - in a timely fashion before they collapsed, it is now being increasingly used in paediatric emergency departments to stream unwell children and, more recently, to try and predict admission v. discharge from the ED. Sandell and Maconochie comment on a recent paper on the subject in May 2016's Emergency Medicine Journal: Paediatric early warning systems (PEWS) in the ED. It is a non-universal, fairly blunt tool and of poor predictive value on its own as a means of telling which children are going to collapse. However, the authors acknowledge that there are "additional (although much less readily measurable) benefits" to using PEWS within the ED including:

1. a culture and language that facilitates communication between different members and groups of staff
2. staff empowerment
3. established escalation actions that allocate senior staff to the sickest patient
4. an additional 'safety-net' that should prompt an appropriate response, should a sick child be otherwise 'missed'.

Our PEWS score in the EDs of Barts Health is numerical and is made up of heart rate, respiratory rate, work of breathing, O2 saturations +/- the need for supplemental oxygen and capillary refill time. Please note that, **once measured, the score has to be acted upon**; a child's PEWS dictates when they need to be reviewed again and by whom. A score ≥ 8 should prompt you to move the child to the resus area and call senior staff. However, don't be falsely reassured by a low PEWS. Plenty of very sick children have vital signs within the normal ranges (eg. a new leukaemic); if in doubt, ask your senior colleagues to review. We send 90% of the paediatric ED attenders home within a few hours; please let's make sure it's the right 90%.

Welcome to our new trainees and to everyone starting out on their ED or GP training. Please do keep up to date with all things paediatric by reading the monthly Paediatric Pearls newsletters available on the site and searchable should you wish to look up a topic. Also take a look at the collection of primary care guidelines from around the UK which may help to inform your practice. Have a look at the September 2013 newsletter for a list of useful links to articles on the site to get you started on common paediatric problems. Do make contact if you want to write for www.paediatricpearls.co.uk or if there is anything you would like me to cover in forthcoming issues.

Do you know your hammer toe from your mallet toe?

with thanks to Miss Sarah McMahon, orthopaedic registrar at RLH, for the reminder. And for putting together a whole document on orthopaedic toes which I am serialising. Curly toes appeared in the June 2016 Paediatric Pearls newsletter. Hammer, mallet and claw toes are not as common in children.

		PATHOLOGY	MANAGEMENT	REFER IF….
Hammer Toe		**Flexion of the PIPJ, extension of the DIPJ. Ill-fitting shoe wear, uncommon in children.**	**Conservative, orthotics, surgical correction (soft tissue release/fusion)**	**Painful, shoes rubbing, blistering**
Mallet Toe		Flexion attitude of the DIPJ. Other joints normal. Uncommon in children, tight shoes	Shoe modification Surgery (flexor release or fusion of the DIPJ)	Persistent despite sensible measures, callosities, rubbing, blistering, pain

Patient information on toe deformities here.

General patient information on a variety of paediatric orthopaedic complaints here.

Please refer WF and Redbridge paediatric orthopaedic outpatients to Royal London Hospital, Whitechapel.

PIPJ—Proximal Interphalangeal Joint—in between the proximal and middle bone of the toe—toe knuckle nearest the foot

DIPJ—Distal Interphalangeal Joint—joint between the distal and middle bones of the toe—toe knuckle nearest toenail