

Abstract 223 Table 1

	Clinic	Feature in LOINC	Diagnosis	Genes in LOINC
SDS	Delayed weight gain	LP36298-5 Failure to thrive	Pancreas insufficiency	41764-2SBDS gene-targeted mutation analysis in Blood or
SDS	Fatty stool	16142-2 : Fat [Mass/time] in 24 hour Stool	Pancreas insufficiency	Tissue by Molecular genetics method
SDS	Recurrent infections	751-8 Neutrophils [#/#volume] in Blood by Automated count	Neutropenia	
Thal	Pale	718-7 Haemoglobine in blood	Anaemia	55234-9Alpha thalassemia gene panel - Blood by Molecular genetics method
Thal	Screening Newborns	46740-7 Haemoglobine disorders newborn screen interpretation	Hemoglobinopathy	

pregnancy, birth, growth, development, physical examination and vaccination, to promote and maintain health. We identified, among other codes, the *Logical Observation Identifiers Names and Codes*, a universal standard and electronic database for clinical care and management, applicable to child health care (such as codes 8339-4Birth weight Measured and 8287-5Head Occipital-frontal circumference by Tape measure) for registering the first feature of a (rare) disabling condition. Medical guidelines on Shwachman Diamond Syndrome (SDS) and Thalassaemia Major were reviewed on recommended measurements. LOINC codes specific for SDS and thalassaemia were applied in text mining for processing PubMed document sets.

**Results** We identified a subset of international interoperable codes to help to identify (rare) disabling conditions presenting in the first years of life. Child health handbooks can be enriched with a simple laboratory test to help diagnose diseases as a possible part of a (rare) condition.

Text mining is a powerful tool for processing PubMed document sets to identify diagnostic test in literature. Using unsupervised techniques such as clustering and spatial placement, with one can quickly gain insight into the contents of the documents, discover hidden properties and determine how to further explore and label the data.<sup>2</sup> Terms that belong to LOINC codes in filtering the whole (ranked) document set one can identify also the important rare disease papers that most likely are relevant for a medical test.

**Conclusions** The application of specific code-sets ensures the harmonization of data and the possibility of data exchange. As demonstrated with the LOINC the establishment of an interoperable child health record, including children with chronic illness and disabilities, is feasible. Collaboration between paediatricians, families, health system managers and data services is necessary to provide digital solutions to support the SDG3.

## REFERENCES

1. [https://www.who.int/reproductivehealth/publications/mhealth/WHO\\_Classifications\\_Poster.pdf?ua=1](https://www.who.int/reproductivehealth/publications/mhealth/WHO_Classifications_Poster.pdf?ua=1)
2. <https://rarecare.world/sites/default/files/2021-01/Schwachman-Disease-Text-Mining-Paper.pdf>

224

## IMPROVING PAEDIATRIC EMERGENCY DEPARTMENT REFERRALS TO FRACTURE CLINIC WITH THE INTRODUCTION OF A MUSCULOSKELETAL CLINIC – A RE-AUDIT

Kabir Matwala, Ruth Green, Charles Stewart. UK

10.1136/bmjpo-2021-RCPC.122

**Background** Fracture clinic (FC) and Paediatric Emergency Department (PED) have a crucial relationship in the management of musculoskeletal (MSK) injuries in children. A high volume of patients are assessed in FC and even a small number of inappropriate and non-specific referrals severely disrupts the flow of FCs.

Chelsea and Westminster Hospital, London, has seen a rapid increase in children attending PED and subsequent referrals to FC. In light of this, we set up a MSK clinic.

**Objectives** To reduce the number of inappropriate referrals made from the PED to FC.

**Methods** PED referrals to FC prior to the introduction of the MSK clinic were audited. Data was collected retrospectively from 22 consecutive FCs over a 10-week period from February 2019 to April 2019. Patient demographics, diagnosis and management were recorded for these patients. PED referrals to FC were re-audited after the MSK clinic was set up. 18 consecutive FCs were retrospectively analysed over a 9-week period from January 2020 to March 2020. The appropriateness of these referrals was compared before and after the establishment of the MSK clinic.

An appropriate referral was defined as one in which the resulting diagnosis was a fracture, and a referral was classed inappropriate if the diagnosis was not.

**Results** The initial audit in 2019 which included 203 children referred to FC by PED showed that 35.5% of referrals were inappropriate. After the introduction of the MSK clinic, the re-audit demonstrated an improvement, as of the 178 referrals, only 26% were non-fractures.

Most notably, the number of ‘unspecified injury’ referrals decreased in 2020 compared to 2019 (29% in 2019 to 9% in 2020).

**Conclusions** The introduction of the MSK clinic has proven an effective way of reducing the number of inappropriate and non-specific referrals made by PED to FC.

225

## PRESCRIPTION OF PARACETAMOL AS AN ANTIPYRETIC IN PAEDIATRICS: ANALYSIS OF PRACTICES IN A NATIONAL ACUTE AND TEACHING HOSPITAL

Joanna Cachia, Jamie Alexander Grech, Cecil Vella. Malta

10.1136/bmjpo-2021-RCPC.123

**Background** Prescription errors represent a pervasive problem found across many hospitals and the ubiquity by which antipyretics are prescribed in paediatrics makes them a frequent source of error. Such avoidable errors not only lead to actual physical harm for the child, but also incur financial and legal costs on the service provider, dampen public confidence in the health care system and predispose to negative psychological effects on both the patient and prescriber.

**Objectives** Prescriptions of Paracetamol for paediatric inpatients at Mater Dei Hospital, a national acute and teaching hospital