2023 Sept 9-15 WGM CHOICE

PC + PA Work Groups Update

Cochairs:
• Michael Tan
• Mike Padula
CHILD HEALTH OBSTETRICS INTERNATIONAL COLLABORATION & EXPLORATION
Background – Working group & project goal

- **CHOICE working group**
  - International collaboration in obstetrics and child health projects
    - Netherlands, USA, Australia, Sri Lanka, Germany, UK, Sweden, Norway
  - Active since January 2020 (HL7 WGM Sydney)

- **Project goal**
  - Achieve uniform method for handling of data of the unborn child
    - Provide guidance on implementation, use and handling of relevant FHIR resources and terminology
Options - Explored fetus modeling options

- BodyStructure
- New resource for Fetus
- Patient
  - Born status extension boolean value (true/false)
  - Born status extension coded value (born/unborn/demised/unknown)
  - Birth date unavailable with data absent reason unborn
  - Replace birthDate with birth[x] choice element (birthDate and birthBoolean)

Zulip conversation
The patient resource is a FHIR resource that is maintained by the Patient Administration Work Group. The project team has discussed previously mentioned options with PCWG and PAWG. This has been recorded in Jira under FHIR_39466. The decision was taken in January 2023 during the HL7 WGM in Henderson. The Patient resource with extension with a coded value (option 3B) is viewed as the best choice.

The extension has been included in FHIR R5. Description of the extension:

[Link](https://www.hl7.org/fhir/patient.html#maternity)

Terminology binding for BornStatus: [Link](https://www.hl7.org/fhir/uv/extensions\born-status - FHIR v5.0.0)

Link to FHIR documentation about how to relate a mother and a child in FHIR:
### Patient FHR R5
- Born status extension *born/unborn/fetal demise/unknown*

This structure is derived from Patient

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<th>Flags</th>
<th>Card.</th>
<th>Type</th>
<th>Description &amp; Constraints</th>
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<td>0..“</td>
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<td>url</td>
<td>The namespace for the Identifier value</td>
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<tr>
<td>value</td>
<td>S</td>
<td>0..1</td>
<td>string</td>
<td>The value that is unique</td>
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<tr>
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<td>S</td>
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1 Home

Draft as of 2023-08-01
Version: 1.0.0-ballot
Computable Name: InternationalBirthAndChildModel

1.1 Introduction
This implementation guide aims to provide guidelines and support on the handling of fetus data in FHIR. The Project ID: 932

1.1.1 Contributors
- Michael Tan (Woxington - project lead)
- Mike Papatula (Children Hospital of Philadelphia)
- Liesbeth Siderius
- Lilian Minne (Nictz)
- Shovan Roy (TechIntro, Australia)
- Sahan Damsiri Perera (University of Colombo, Sri Lanka)
- Ben MCalister (Oracle)
- Stephen Chu (Australian Digital Health Agency)
- John Silva (Vemonster, LLC)
- Rob Hausam (Hausam Consulting LLC)
A 32 yo Gravida 3 Para 2002 Mother with a history of hypertension on labetolol during this pregnancy was diagnosed with female fetus with d-transposition of the great arteries (SCTID: 399216004) on fetal echocardiography at 21 3/7 weeks gestation. Most recent U/S at 37 5/7 weeks revealed an estimated fetal weight of 2.960 kg. Prostaglandin E infusion 0.01 mg/kg/min was ordered based on a dosing weight of 3kg to be initiated just after birth following umbilical line placement.
Results - Service Request
28 yo Gravida 1 Para 0 Mother with a dichorionic/diamniotic twin pregnancy, foetus A antenatally diagnosed with left congenital diaphragmatic hernia (CDH) containing small bowel, spleen and stomach in the left hemithorax on level 2 ultrasound at 20 weeks. Evaluation at 24 1/7 weeks revealed Lung-Head Ratio (LHR) of 0.67 via ultrasound and an observed:expected lung volume 0.21 via MRI. Normal karyotype - 46 XY on amniocentesis for both foetuses. Foetus B noted to have hypospadias on antenatal ultrasound.
Results - Result Reporting
Ballot results

Specification: International Birth And Child Model (FHIR)
Specification Location: http://hl7.org/fhir/uw/ibcm/1.0.0-ballot/
Voters - Total Eligible: 120
Voters - Affirmative: 5
Voters - Negative: 24
Voters - Abstain: 61

Approval Status: Not Passing (so far)

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Jira issues related to Patient

- https://jira.hl7.org/browse/FHIR-42449
- https://jira.hl7.org/browse/FHIR-42525
- https://jira.hl7.org/browse/FHIR-42526
- https://jira.hl7.org/browse/FHIR-42527
- https://jira.hl7.org/browse/FHIR-42528
Thank you!