

Project Title

STORK: Delivering Singapore's First Obstetrics Next Generation Electronic Medical Record (NGEMR)

Project Lead and Members

Project lead: Lim Tak Yein

Project members: Christine Nyai, Kanneganti Abhiram, Stella Mary, Zelana Binte Mohd Fauzi Antoni Das, Lim Peng Im, Cheryl O Pia Mandadero, Loh Hui Fang, Nur Faridah Binti Husni, Nur Amira Binte Abdollah

Organisation(s) Involved

National University Hospital

Healthcare Family Group(s) Involved in this Project

Ancillary Care, Healthcare Administration, Medical, Nursing

Applicable Specialty or Discipline

Obstetrics & Gynaecology, Medical Informatics, Nursing

Project Period

Start date: July 2020

Completed date: Feb 2024

Aims

See poster appended/ below

Background

The NUH Department of Obstetrics and Gynaecology (O&G) worked alongside the Epic build team to develop Stork as Singapore's first next generation EMR (NGEMR) for Obstetrics Care.

- Significant re-working of Stork was required as the original Epic system was based on an obstetric model of care in the United States, which was vastly different from our local setting.
- The enhanced localised EMR system has the ability to harmonise obstetric care to improve patient safety within the maternal baby dyad and optimise work efficiency amongst a multi-disciplinary care team.

Methods

See poster appended/ below

Results

See poster appended/ below

Conclusion

Development of the enhanced version of Stork is the first local attempt to create an integrated multidisciplinary EMR that is designed to put seamless care mother child dyad as the highest priority.

- The enhanced Stork system is a far more locally relevant platform and the benefits in efficiency, patient safety and integration will bring dividends for years to come.
- Coupled with the advanced data extraction features of the Epic system, the indigenisation of Stork promises to bring an unprecedented ability to audit maternal outcomes not just at an institutional level, but soon at a national level.

Project Category

Technology

Digitalisation, Digitisation

Product Development, Product Evaluation

Keywords

Multidisciplinary EMR, O&G EMR

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STORK: Delivering Singapore's First Obstetrics Next Generation Electronic Medical Record (NGEMR)

Team Leader: Lim Tak Yein, Principal Resident Physician, National University Hospital (NUH)

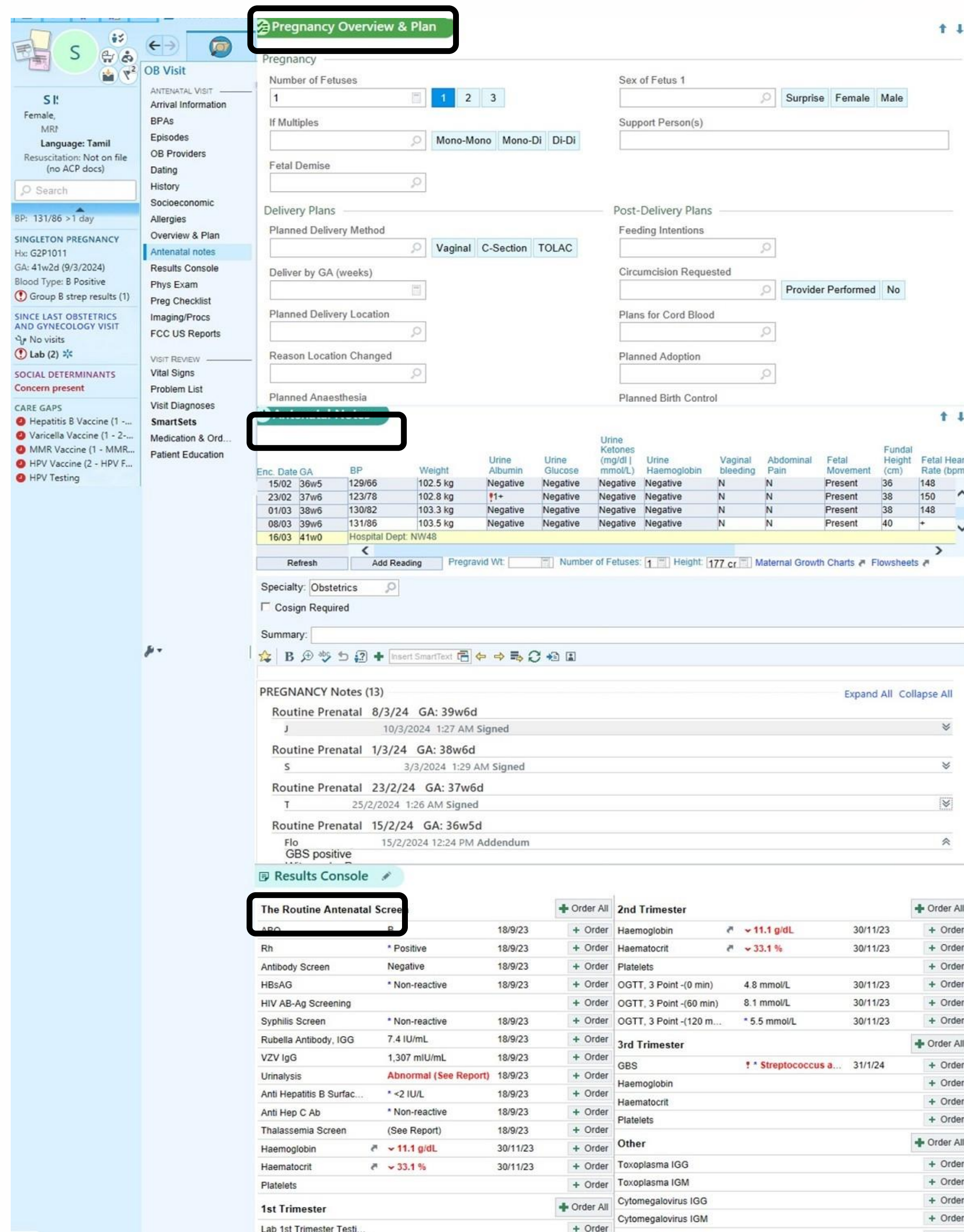
Members: Christine Nyai², Principal Medical Informatics Specialist; Kanneganti Abhiram¹, Associate Consultant; P Stella Mary¹, Senior Nurse Manager; Zelana Binte Mohd Fauzi Antoni Das¹, Nurse Manager I; Lim Peng Im¹, Senior Nurse Manager; Cheryl O Pia Mandadero¹, Assistant Nurse Clinician; Loh Hui Fang¹, Senior Staff Nurse II; Nur Faridah Binti Husni¹, Senior Staff Nurse II; Nur Amira Binte Abdollah¹, Senior Team Leader

¹National University Hospital; ²National University Health System

BACKGROUND

- The NUH Department of Obstetrics and Gynaecology (O&G) worked alongside the Epic build team to develop Stork as Singapore's first next-generation EMR (NGEMR) for Obstetrics Care.
- Significant re-working of Stork was required as the original Epic system was based on an obstetric model of care in the United States, which was vastly different from our local setting.
- The enhanced localised EMR system has the ability to harmonise obstetric care to improve patient safety within the maternal-baby dyad and optimise work efficiency amongst a multi-disciplinary care team.

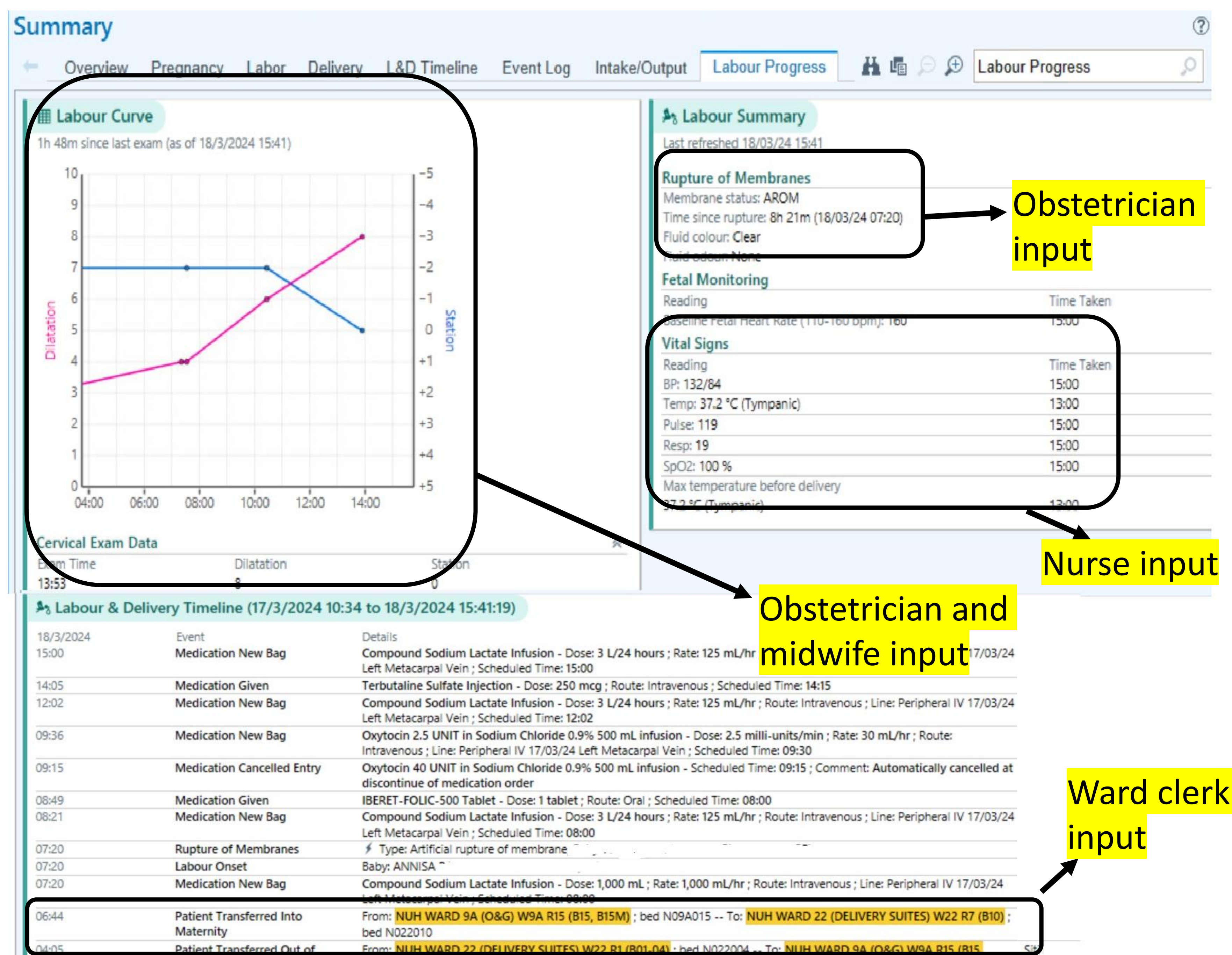
ANTENATAL



The screenshot displays the 'Pregnancy Overview & Plan' interface. It includes sections for 'Pregnancy Overview', 'Delivery Plans', 'Post-Delivery Plans', and 'Results Console'. The 'Results Console' shows various lab results such as Hemoglobin, Hematocrit, and Platelets, with checkboxes for ordering additional tests.

- ✓ Use of localized terminologies.
- ✓ Contains workflows commonly used in local setting.

INTRAPARTUM

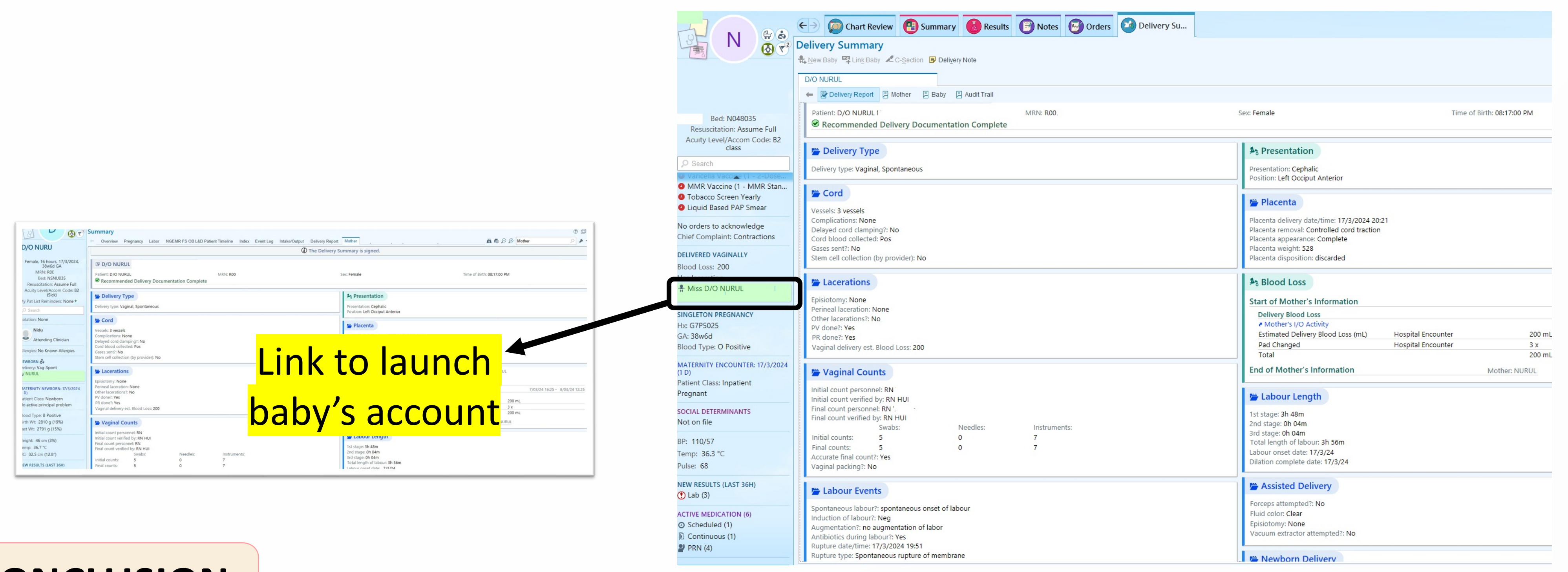


The screenshot shows the 'Labour Progress' interface. It features a 'Labour Curve' graph plotting dilation and station over time. A 'Labour Summary' box provides key events like 'Rupture of Membranes' and 'Fetal Monitoring'. A 'Labour & Delivery Timeline' lists medical interventions and their times. Annotations highlight 'Obstetrician input', 'Nurse input', and 'Obstetrician and midwife input' on the interface.

- ✓ Shared platform for a multidisciplinary care team management of a laboring patient.

POSTNATAL

- ✓ Quick access to neonate notes with a single click, and vice versa.
- ✓ Enhanced work efficiency and coordination amongst interdisciplinary care providers (e.g. neonatologist, obstetrician)



The screenshot displays the 'Delivery Summary' interface. It includes sections for 'Delivery Type', 'Presentation', 'Placenta', 'Blood Loss', 'Labour Length', and 'Assisted Delivery'. A yellow box highlights a 'Link to launch baby's account' button.

CONCLUSION

- Development of the enhanced version of Stork is the first local attempt to create an integrated multidisciplinary EMR that is designed to put seamless care mother-child dyad as the highest priority.
- The enhanced Stork system is a far more locally relevant platform and the benefits in efficiency, patient safety and integration will bring dividends for years to come.
- Coupled with the advanced data extraction features of the Epic system, the indigenisation of Stork promises to bring an unprecedented ability to audit maternal outcomes not just at an institutional level, but soon at a national level.