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Avalon

Beltless fetal monitoring solution

Comfortable care in demanding situations

As a caregiver, you want to sustain your patient's mobility and comfort while keeping a constant eye on her condition. Cableless transducers can enhance the labor experience without sacrificing essential monitoring. However, traditional cableless technology has limitations in certain situations, such as mothers with a high BMI[1,2], or those undergoing epidural procedures.

This is where the Avalon beltless fetal monitoring solution fits into your workflow and provides a new alternative for situations where monitoring has traditionally been difficult. The solution consists of the reusable CL Fetal & Maternal Pod, and the single-use CL Fetal & Maternal Patch. You attach the adhesive electrodes of the patch to mother's abdomen, then magnetically connect the pod to the patch. The pod communicates with the Avalon CL base station, and the comfortable patch replaces the sweat soaked and pinching belt, removing the need for readjustment as the delivery progresses[3,4]. You can concentrate on caring for the mother, and rely on the technology to provide you with continuous monitoring, even under challenging conditions.

Key advantages

- Enables continuous fetal and maternal monitoring for high BMI patients[5]
- Enhances workflow for clinical staff by eliminating the need for repositioning of transducers and belts
- Supports a continuous patient record
- Unambiguous parameter labels for clearly traceable documentation
- Familiar and consistent user interface with easy measurement set-up without the need for unplugging and plugging of transducer cables
- Comfortable, cableless and belt-free fetal monitoring[6]

Innovative technology, established values

Instead of conventional ultrasound technology, the beltless fetal monitoring solution uses ECG and EMG signals to extract fetal and maternal heart rates and uterine activity from the mother's abdomen. Integration into your Avalon fetal monitoring solution gives you the additional parameters with their own labels (aFHR, aHR, and aToco). This enhances the clarity and consistency of your records by documenting the measurement sources. You can even avoid breaks in your records when changing to the Avalon beltless solution, by using it in parallel with cableless Avalon transducers. In addition, it uses the same Avalon CL base station, so you do not need to manage extra interface devices or cabling.

New possibilities, same convenience

The integration into your Avalon fetal monitoring has other benefits, too.

- The same cableless convenience connecting to the fetal monitor without cable clutter.
- The same ease of patient assignment by associating the CL Fetal & Maternal Pod with your base station.
- The same support from your Avalon fetal monitor, using the familiar user interface.
- An enhanced benefit from your investment in Avalon CL, by accessing additional technology for just the addition of the CL Fetal & Maternal Pod and a software upgrade.

Superb flexibility, reliable measurements[5]

As with other Avalon CL measurements, the CL Fetal & Maternal Pod digitizes the measurements from the patch directly and calculates the results. The values stay digital all the way to the display. This avoids the added complexity of emulating analog signals, as would be necessary for a non-integrated solution. It also supports other possibilities: the beltless solution works with our Avalon CL Wide Range Pod, so you can keep monitoring while the mother is free to move wherever the coverage your WLAN allows.

Helping you tackle hospital-acquired infections

By eliminating additional cables and interfaces, we have also designed the reusable pod of the Avalon CL Fetal & Maternal Patch solution with smooth surfaces for ease of cleaning and disinfection.

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1 Cohen WR, Hayes-Gill B. Influence of maternal body mass index on accuracy and reliability of external fetal monitoring techniques. Acta Obstet Gynecol Scand. 2014 Jun ; 93 (6) : 590–5.

2 Graatsma EM, Miller J, et al. Maternal body mass index does not affect performance of fetal electrocardiography. Am J Perinatol. 2010 Aug ; 27 (7) : 573–7.

3 Stampalija T, Signaroldi M, et al. Fetal and maternal heart rate confusion during intra-partum monitoring: comparison of trans-abdominal fetal electrocardiogram and Doppler telemetry. J Matern Fetal Neonatal Med. 2012 Aug ; 25 (8) : 1517–20.
Cohen WR, Ommani S, et al. Accuracy and reliability of fetal heart rate monitoring using maternal abdominal surface electrodes. Acta Obstet Gynecol Scand. 2012 Nov ; 91 (11) : 1306–13.

4 Rauf Z, O'Brien E, Stampalija T, et al. PLoS ONE 2011 6 (11) : e28129.

5 Hayes-Gill B, Hassan S, et al. Accuracy and Reliability of Uterine Contraction Identification Using Abdominal Surface Electrodes. Clinical Medicine Insights: Women's Health 2012 : 5 65–75.

6 Reinhard J, Hayes-Gill BR, et al. Comparison of non-invasive fetal electrocardiogram to Doppler cardiotocogram during the 1st stage of labor. J Perinat Med. 2010 Mar ; 38 (2) : 179–85.

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