Actim Partus is a quick and reliable bedside test to identify patients with a real risk of imminent or preterm delivery, even before symptoms are clinically visible.

Every year 15 million infants are born before the pregnancy has gone full term. Preterm delivery (PTD), delivery before 37 weeks of gestation, is the leading global cause of morbidity and mortality associated with child birth. Early detection of high-risk patients is challenging, as half of pregnant women experience symptoms, yet only one fifth of these are at real risk of immediate or preterm delivery.

Identification of patients in need of urgent care helps to avoid unnecessary and potentially hazardous treatment in low-risk patients, thus improving patient care and inducing cost savings.
The Actim Partus rapid test is based on unique and highly specific monoclonal antibodies that bind to the phosphorylated form of insulin-like growth factor binding protein-1 (phIGFBP-1). phIGFBP-1 is produced in the fetal decidua, but leaks into the cervix when the decidua and chorion detach (Figure 1).

A phIGFBP-1 concentration of 10 µg/l or more in the cervical fluid extract causes a positive Actim Partus test result. This indicates significant tissue damage, potentially leading to PTD. A negative test result, in turn, means that there are no significant changes in the choriodecidual layer; delivery is therefore very unlikely within the next 1–2 weeks, even if the patient has contractions.

**EFFECTIVE IN PREDICTING PRETERM DELIVERY**

Clinical evidence from multiple studies shows that Actim Partus has a very high (98%) negative predictive value (NPV), and is therefore a reliable tool to rule out the risk of imminent (Table 1) or preterm (Table 2) delivery.

**HOW IT WORKS**

ACTIM PARTUS: KEY FACTS

- Reliably rules out the risk of imminent or preterm delivery when fetal membranes are unbroken
- Can be used from week 22 onwards
- Easy-to-use one-step dipstick test
- Gives test results at the bedside in just 5 minutes, with sampling completed in seconds
- Test results are not affected by intercourse, semen, urine, vaginal medications, lubricants, bathing products, or infections

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TABLE 1. Clinical evidence of Actim Partus as a predictor of delivery within 7 days.

<table>
<thead>
<tr>
<th>Reference</th>
<th>Number of patients</th>
<th>GA (wk)</th>
<th>Sensitivity %</th>
<th>Specificity %</th>
<th>PPV %</th>
<th>NPV %</th>
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<tbody>
<tr>
<td>Tripathi et al., 2016</td>
<td>468</td>
<td>28–36</td>
<td>95</td>
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<td>Azlin et al., 2010</td>
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<td>Brik Spinelli et al., 2010</td>
<td>276</td>
<td>24–34</td>
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FIGURE 1. Actim Partus identifies the risk of PTD through a simple cervical swab sample.
Identifying patients who have harmless contractions from those at real risk of preterm delivery can be difficult. In practice, this means that over-diagnosis and over-treatment are often the only option.

Actim Partus supports clinical decision making by helping correct PTD diagnosis. Patients who don’t require immediate medical attention can be sent home, instead of treating all patients who have preterm contractions. This saves cost and time for both the patient and hospital.

### A POSITIVE ACTIM PARTUS TEST RESULT
- The patient has a higher risk of PTD and should be evaluated for treatment aiming at delaying the delivery or preparing the baby for delivery.
- Early identification of patients at real risk of PTD allows timely interventions.

### A NEGATIVE ACTIM PARTUS TEST RESULT
- The patient can be sent home unless otherwise clinically indicated, as delivery is highly unlikely within the next 1-2 weeks.
- Unnecessary treatments with potential side effects can be avoided, the mother is given peace of mind, and hospital resources are saved.
- More than 2/3 of the symptomatic women get a negative result.

### Reference Number of patients

<table>
<thead>
<tr>
<th>Reference</th>
<th>Number of patients</th>
<th>GA (wk)</th>
<th>End-point</th>
<th>Sensitivity</th>
<th>Specificity</th>
<th>PPV</th>
<th>NPV</th>
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### MOST WOMEN REMAIN SEXUALLY ACTIVE DURING PREGNANCY

and because intercourse and semen do not interfere with the Actim Partus results, there is no need to rule out these patients.
Pregnant women who are in preterm labor with intact fetal membranes, and who have a positive phIGFBP-1 test result in cervical secretion, have an increased risk of preterm delivery. Kekki et al., 2001

The combined use of phIGFBP-1 and transvaginal ultrasound cervical length showed a higher efficacy in predicting PTL [pre-term delivery] as compared with either indicator alone. Thus, implementation of the combined methods in women with suspicion of pre-term labour has potential to improve the prediction of pre-term labour, and thus, treatment can be more directed. Azlin et al., 2010

Cervical phIGFBP-1 provided additional information for assessing symptomatic women at high risk of preterm delivery. Birn Spinelli et al., 2009

The high negative predictive value of this test, especially for delivery within seven days, may aid the clinician to avoid unnecessary and potentially hazardous medications. Tanir et al., 2009

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Actim Partus is already in use ALL OVER THE WORLD, and it has been included in several national treatment guidelines.
HOW TO USE ACTIM PARTUS

1. Collect sample
2. Extract Specimen
3. & 4. Activate the test
5. Interpret results

The test kit contains all necessary materials and can be stored at room temperature.

THE ACTIM INGENI

instrument can be used to digitally interpret test results. As Actim Ingeni automatically saves and interprets test results, data traceability is improved and more time can be devoted to patient care.
Selected references

The full reference list can be found on our website.