

Preterm Labour Audit at Queens Hospital Burton: Review of Actim Partus vs Fetal Fibronectin



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Objectives

Within the Burton Maternity department, Actim Partus is used to help predict the likelihood of preterm labour in women with symptoms.

We wanted to know:

1. Is Actim Partus used accurately in the department and is it effective in diagnosing preterm labour?
2. Is it cost effective?
3. Then compare the effectiveness of Actim Partus vs. Fetal Fibronectin based on results from an audit when this was the test used at the Trust.

Design & Method

We performed a retrospective study between the dates of 1st January 2020 – 31st March 2020 reviewing Actim Partus sampling in women admitted with symptoms of preterm labour to our assessment unit.

We developed a proforma based on our local trust guidelines and NICE guidance.

Once data had been collected and analysed we then compared the results to a previous audit performed in the department in 2010 & 2011 when fetal fibronectin (FFN) was the test for suspected preterm labour to compare the accuracy of the tests.

Results

In total 23 patients were identified:

- 25 Actim Partus tests were performed
 - 17 **negative** tests (15 patients – 1 patient had 3 separate tests)
 - 7 **positive** tests

In total 7 patients delivered <37/40 gestation. Out of these patients 2 of them had a previous preterm delivery.

Of the **negative** Actim Partus (15 in total)

- 13% were kept as an inpatient with 1 patient having steroids
- 27% delivered preterm
 - 1 patient delivered within 7 days of negative test
 - 3 patients delivered preterm but >2 weeks after the negative Actim Partus test

Positive Actim Partus (7 in total):

- 43% delivered preterm → only 1 patient delivered within 7 days of positive Actim Partus
 - 100% received steroids
 - 1 patient required IUT but didn't deliver until 39+6 weeks gestation.

Conclusions

It is clear from the comparison that FFN appears more reliable, although our sample size in both audits were small.

We have updated our hospital guidelines and provided training for new junior doctors on the indications and procedure to perform the test. We are liaising with the FFN suppliers to consider reintroducing this back into the department as a more accurate and cost effective test.

References : Management of Preterm labour – QHB guidelines 2018, NICE (NG 25): Preterm labour and birth guideline, published November 2015

Results: Comparison to FFN Audit 2010 & 2011

Within the FFN audit in 2010 and 2011 a total of 54 numbers were included and the following table is the comparison:

	<u>Actim Partus</u>	<u>Fetal Fibronectin</u>
Compliance	60%	61% & 71%
Negative test – patients admitted	13%	47%
Negative test – patients receiving unnecessary medications	6%	41%
Negative test – patients delivering within 7/ 14 days	6% (7 days)	0% (14 days)
Positive test – patients delivering within 7 / 14 days	14% (7 days)	29% (14 days)

We then used the data to calculate the below findings:

	<u>Actim Partus</u>	<u>Fetal Fibronectin</u>
Positive Predictive Value	14.28%	29%
Negative Predictive Value	93.33%	100%
Sensitivity	50%	100%
Specificity	70%	90%