Comparison of two low sensitivity urinary pregnancy tests (1000IU) used for the self assessment of the success of early medical abortion

Dr Sarah Millar
Dr Sharon Cameron
Edinburgh, Scotland
• 72% ≤ 9 weeks gestation
• Majority have EMA and pass the pregnancy at home
Follow up after early medical abortion
Chalmers Centre, Edinburgh
“Self assessment” after EMA

Cameron et al 2014
Low sensitivity urinary pregnancy tests (LSUP)

• Before October 2014 Babycheck- 1 duo

• After October 2014 Check4

Quadratech diagnostics, UK
AIMS

• To determine whether the single window Check4 Pregnancy low sensitivity urinary pregnancy test (LSUP);

  • a) improves the detection of ongoing pregnancies when compared with the double window Babycheck-1 duo and

  • b) if there are any differences in reported invalid/inconclusive or positive results between the two tests.
METHODS

• Retrospective database review
• 10 months before and 10 months after introduction of the new LSUP.
• National computerized sexual health and regional computerized hospital records.
• Demographics, positive or invalid tests, ongoing pregnancies.
RESULTS

EMA
N=1058

Self assessment
n=1047 (99%)

Babycheck-1 duo n=492

Check 4
n=555

Planned ultrasound
n=11 (1%)
<table>
<thead>
<tr>
<th></th>
<th>Babycheck-1 duo LSUP N= 492</th>
<th>Check4 LSUP N=555</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (years) range</td>
<td>16-47</td>
<td>16-47</td>
</tr>
<tr>
<td>Mean (SD)</td>
<td>26.7 (6.7%)</td>
<td>27.0 (6.7%)</td>
</tr>
<tr>
<td>Gestation (days)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt;49</td>
<td>345 (70%)</td>
<td>383 (69%)</td>
</tr>
<tr>
<td>50-56</td>
<td>89 (18%)</td>
<td>108 (19%)</td>
</tr>
<tr>
<td>57-63</td>
<td>57 (12%)</td>
<td>64 (12%)</td>
</tr>
<tr>
<td>&gt;64</td>
<td>1 (0.2%)</td>
<td>0 (0%)</td>
</tr>
<tr>
<td>Reproductive history</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Previous birth</td>
<td>210 (43%)</td>
<td>207 (37%)</td>
</tr>
<tr>
<td>Previous abortion</td>
<td>158 (32%)</td>
<td>190 (34%)</td>
</tr>
<tr>
<td>Nulliparous</td>
<td>193 (39%)</td>
<td>252 (51%)</td>
</tr>
</tbody>
</table>
RESULTS – ONGOING PREGNANCIES

Babycheck-1 duo

N= 1

5 weeks post EMA. Had +ve LSUP but did not contact service. Proceeded to surgical.

Check4

N= 3

4 weeks post EMA with pain. Not done LSUP. Proceeded to surgical.

4 days post EMA with minimal bleeding. Repeat EMA. Proceeded to surgical.

5 days post EMA with minimal bleeding. Proceeded to surgical.
RESULTS – POSITIVE TESTS

Babycheck-1 duo

- 1% positive
- 99% not positive

Check 4

- 3% positive
- 97% not positive

1 ongoing pregnancy
20% rpoc on ultrasound

P=0.0244
RESULTS – INVALID/INCONCLUSIVE TESTS

Babycheck-1 duo

- 4% invalid
- 96% not invalid

P = 0.0064

Check 4

- 1% invalid
- 99% not invalid
DISCUSSION

• Introduction of Check4 LSUP not altered detection rate of ongoing pregnancies
• Ongoing pregnancies can be detected before LSUP if woman recognises signs & symptoms.
• Services should provide CLEAR information on self assessment.
• Differences in invalid and positive results between the tests
• Check4 probably easier to use & interpret compared with babycheck-1 duo.
AKNOWLEDGMENTS

• We are grateful to Anne Johnstone (research nurses) for assistance with data collection.