## Foetal Movement Awareness

<table>
<thead>
<tr>
<th><strong>Type of protocol</strong></th>
<th><strong>Prevention and Early Intervention</strong></th>
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| **Purpose** | The Foetal Movement Awareness protocol was developed by the Alness and Invergordon Midwifery Team (Ayleen Austin and Karen McKillop) to help support pregnant women to be more aware of their baby’s movements. The protocol was specifically designed for women from 16 weeks’ gestation and consists of:  
- Tips, advice, information and supportive messages  
- Reminders about booking check-up appointments  
- Monitoring about the baby’s movements |

### Protocol overview:

| **Anticipated Outcomes** | The aims and anticipated outcomes of using the protocol are:  
- Better informed and supported mothers  
- Improved attendance at clinic appointments  
- Greater awareness of foetal movements & any changes in movement patterns |

### Corresponding national outputs and outcomes

- **NHW =** national health and wellbeing  
- **HMHM =** taken from the Scottish Government home and mobile health monitoring logic model  

| **Corresponding national outputs and outcomes** | The outcomes contribute towards the following national outcomes:  
- **Personal responsibility (NHW outcome)** – by assisting women to take responsibility for their own, and their baby’s, health  
- **Quality of life (NHW outcome)** – by increasing understanding and hence confidence during pregnancy  
- **Better adherence (HMHM output)** – by increasing the regularity with which women attend clinic appointments  
- **Earlier intervention (HMHM output)** – by helping women identify if their baby’s movements have reduced and to seek help |

### Pathway

Use of Florence is an addition, which enhances the existing patient pathway for pregnant women. It does not replace attendance at antenatal appointments. According to the MCQIC (Maternity Care Quality Improvement Collaborative) all women should have a documented signed discussion regarding foetal moments to continue to help reduce the still birth rate by 35% by March 2019.

### Enrolment process

Give information leaflet at booking and discuss advantages of Florence  
At 16 week appointment: offer Florence, obtain consent and enrol on Florence and add protocol immediately

### Ongoing development

The protocol was reviewed and slightly modified after a few months of use, including the addition of a 2nd version for women to be enrolled at 15 weeks.

### Development and deployment

**Developed:** Jan’17 to Mar’17  
**First patient signed up:** Apr’17  
**Patients to date:** 78  
Recruitment to the protocol has been steady over the months

### Take Up

![Foetal Movement Awareness Chart](chart.png)
## Florentine Protocol Evaluation

### Foetal Movement Awareness

#### Timescale and costs
- Duration of protocol = 24 weeks
- Average text message cost per patient per month = £0.74
- Average overall text message cost per patient = £4.14

#### Monitoring

<table>
<thead>
<tr>
<th>Did not opt in</th>
<th>Holiday</th>
<th>Opted out</th>
</tr>
</thead>
<tbody>
<tr>
<td>16</td>
<td>0</td>
<td>4</td>
</tr>
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Response to monitoring questions – which were sent 3x to most women*
- 20 responded to the monitoring question 3 or more times
- 13 responded once or twice
- 5 did not respond at all
- Average number of response = 2.3
- 3 women responded to indicate they were not happy with their baby’s movements on one occasion and were advised to contact the midwifery team

* See challenges, below

#### Patients’ views

Responses from 14 patients, out of 37 sent the text survey (response rate = 38%)
- 93% would recommend Florence to other people in their circumstances
- 92% felt the text messages had helped them remember check-ups (n=13)
- 82% felt the messages had helped them be more aware of their baby’s movements (n=11)

Responses from 6 women, out of 58 sent the paper questionnaire (response rate =10%) – this is a very low response rate compared with other Florence protocols
- 100% of patients who responded agreed that Florence was encouraging and easy to understand and that Florence had helped them remember health information and advice
- 83% agreed that Florence was informative and supportive, that Florence had helped them comply with health advice and that using Florence had been a positive experience
- 67% agreed that using Florence had enhanced their experience of NHS Highland healthcare
- 50% agreed that Florence had helped them become more aware of health issues
- None of the respondents felt that Florence was irritating, confusing, patronising or intrusive

#### Free text responses

- Like: Useful for remembering when to book appointments (P.1)
- Like: reminders for appointments (P.2)
- Like: Reminders of looking out for baby’s movements. Reminders of antenatal appointments as when busy/working or ill the weeks merge together and can be difficult to remember (P.4)
- Like: The texts are reassuring (P.1)
- Like: That it is done via text message instead of having to talk on the phone. (P.5)
# Florence Protocol Evaluation

## Foetal Movement Awareness

It is a good idea, but it is too general and impersonal. To actually work, it needs to be personalised for each individual. It could be a fantastic service! I love the idea, but it needs to be personalised and relevant to each individual using it. (P.6)

**Dislike:** some of the info which could raise anxiety if not handled sensibly (P.2)

**Suggested improvements:** More relevant and personal - the ability to send text replies via wifi (very important for people living in the Highlands) - more detail about baby’s growth, health, etc. - more helpful tips about coping with pregnancy. (P.6)

**Suggested improvements:** Nothing - thought the service was perfect the way it is ☺️ (P.4)

## Clinicians’ views

Midwives say:
- Most women have been positive when offered Florence, only a handful have declined
- Patients have all been positive about Florence’s messages – one said “It’s great, I look forward to it”. Nobody has said they find it intrusive
- Women appreciate the helpful hints about their baby over the weeks
- We’ve had such positive feedback – I spoke to a Mum today who really liked it

- The appointment reminder service is working well – women are attending appointments more regularly and on time, as a result of Florence
- There are fewer who need chasing up to arrange and attend appointments
- We are having to spend less time phoning people

- Florence is contributing to women being better educated about foetal movements
- Women are more informed about when to contact us and the hospital and the importance of doing that
- We’re receiving fewer phone calls about baby movements

- Our main aim was for women to be more aware of their baby’s movements – and 82% felt it had helped them be more aware of their baby’s movements

## Assessment

Challenges have included:
- Ensuring that women are added to the protocol at the correct number of weeks of gestation, so the messages are timed correctly, can be problematic
- There is a need for admin support for enrolling patients on Florence
- The take-up of Florence varies between midwives – it is affected by the midwife’s explanation of Florence and their enthusiasm (or lack of it)
- Errors have occurred during the Florence enrolment process (in 3 cases the protocol was added twice, in one case 3 times and in one not at all)
- A relatively high proportion of those enrolled on Florence did not opt in (16/87 = 18%) despite completing a consent form
# Florence Protocol Evaluation

## Foetal Movement Awareness

| Successes | A high proportion of pregnant women seen were recruited to Florence  
|           | The majority of women (86%) responded to the monitoring questions at least once, and 53% responded at least 3 times, indicating engagement with Florence.  
|           | Though the response rate to the evaluation questionnaires is low, responses are very positive about Florence – with women particularly liking:  
|           | o Reminders to book appointments  
|           | o Reminders to look out for baby’s movements  
|           | Use of Florence is perceived by midwives to have led to women booking and attending clinic appointments more consistently, to a reduction in phone calls to chase women or to respond to their queries or concerns about their baby’s movements, and to women being more aware of their baby’s movements. |
| Outcomes: | Judging from feedback from patients and midwives, the agreed outcomes for this Florence protocol are all being achieved. |
| Savings:  | Use of Florence has not resulted in cost savings, but has reduced workload. |
| Future:   | The NHS Highland midwifery service is planning to start rolling out use of Badgernet, a paperless maternity system, in April 2018. This may eventually include use of text messaging, and hence supersede use of Florence, however, this aspect of Badgernet will not be an early priority so use of Florence will continue for the foreseeable future. |