

Robson, Stephen C., Marshall, Alison ORCID: https://orcid.org/0000-0001-6816-2362, Snaith, Vikki J., Beckwith, B., Lie, M., Bidmead, Elaine ORCID: https://orcid.org/0000-0003-0166-4506, Van Oudgaarden, E. and Henderson, A. (2016) Improving prenatal diagnosis and management in Cumbria by telemedicine. In: Academic Health Science Network North East and North Cumbria (AHSN NENC) Stakeholder Engagement Event, 2 March 2016, Hallmark Hotel, Carlisle, UK. (Unpublished)

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Improving Prenatal Diagnosis and Management in Cumbria by Telemedicine SC Robson<sup>1</sup>, A Marshall<sup>2</sup>, B Beckwith<sup>3</sup>, E Van Oudgaarden<sup>4</sup>, M Lie<sup>1</sup>, A Henderson<sup>4</sup>, VJ Snaith<sup>3</sup>. <sup>1</sup>Newcastle University, <sup>2</sup>University of Cumbria, <sup>3</sup>The Newcastle upon Tyne Hospitals NHS Foundation Trust, <sup>4</sup>North Cumbria University Hospitals NHS Trust

## Background

- Women are referred for consultation with a fetal medicine specialist when a problem (small baby or fetal anomaly) is detected during an antenatal scan.
- Three consultant-led units in Cumbria currently refer women to Newcastle for specialist fetal medicine care.
- For some women, this can involve travelling for up to six hours, at their own expense.
- Telemedicine has previously been used to transmit good quality obstetric ultrasound images [1,2] and has the
  potential to provide specialist obstetric ultrasound and consultation to women in Cumbria.



### Aims

 To establish a videoconferencing infrastructure between the obstetric ultrasound unit at West Cumberland Hospital and the Fetal Medicine Unit in Newcastle.

# Progress

- A telemedicine link has been successfully established.
- To determine the technical success of the service.
- To evaluate the success of utilising the telemedicine to provide ultrasound training and competency assessment in uterine artery and middle cerebral artery Doppler measurement.
- To assess women's views of using a telemedicine ultrasound service, including family costs.
- To assess the benefits and barriers to adoption of the service across Cumbria.

- Fetal ultrasound images have been transmitted via the link and are of good quality.
- Sonographers from WCH have commenced a programme of training via the telemedicine link to gain competency in advanced fetal Doppler techniques.
- Fetal medicine scans will be undertaken from October 2015.

References: 1. Fisk NM et al. BJOG 1996; 103: 1092-5; 2. McCrossan BA et al. Prenat Diagn 2012, 12: 883-7