POCUS IN EARLY PREGNANCY COMPLICATIONS

Time for the UK POCUS clinician to upskill?

AIMS

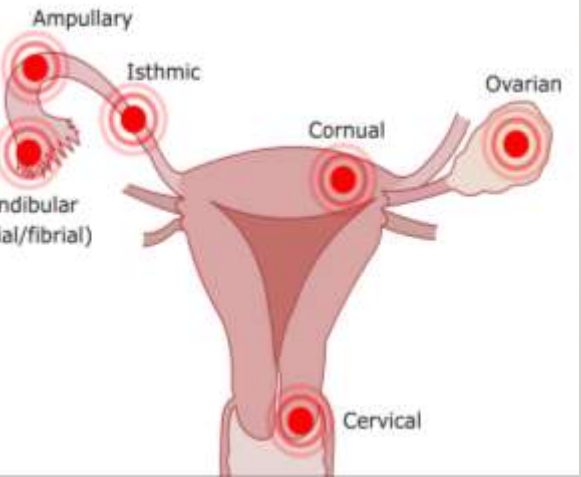
- Typical presentations to the ED
- Current management strategies
- Impact on patients
- Evidence for POCUS
- The way forward

CASE REPORT

- 23-year-old
- 7 weeks pregnant
- Previous miscarriage
- Rang GP
- Reported lower abdominal pain and bleeding
- Nearest Emergency Department no gynaecology services on site

CURRENT GUIDELINES

NICE
National Institute for Health and Care Excellence



NICE Guidelines:

Refer to an early pregnancy assessment service (or out-of-hours gynaecology service) patients with symptoms of early pregnancy complications who have:

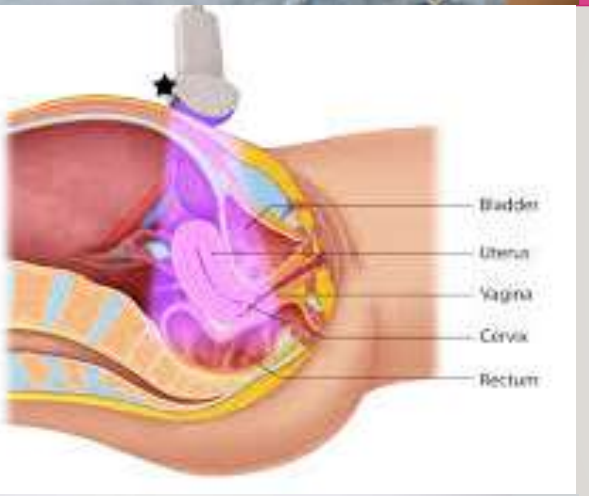
- pain **or**
- a pregnancy of 6 weeks' gestation or more **or**
- a pregnancy of uncertain gestation.

The urgency of this referral depends on the clinical situation.

OPTIONS FOR THE EM CLINICIAN

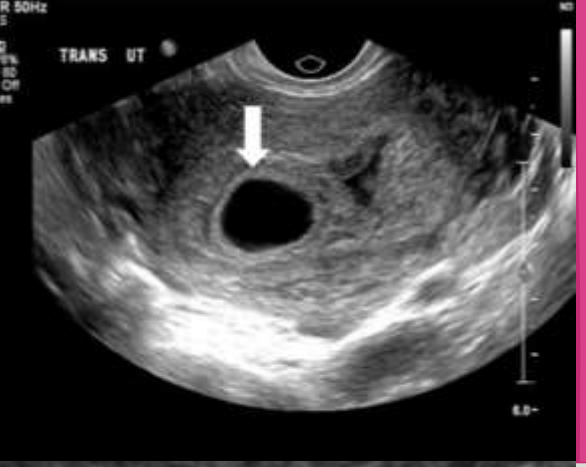
- EPAU appointment day after tomorrow
- Transfer to another unit 7 miles away
- POCUS?

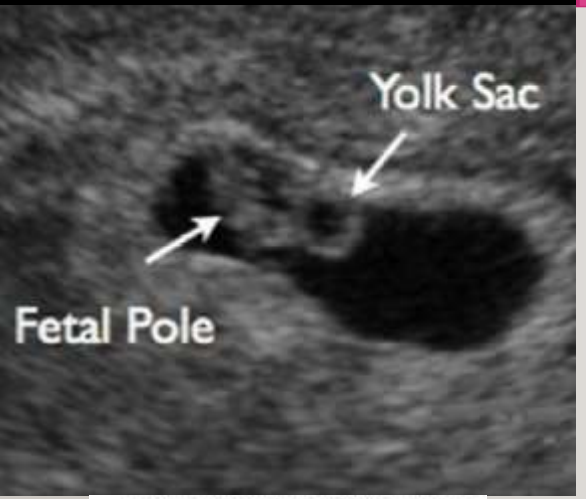
POCUS APPROACH

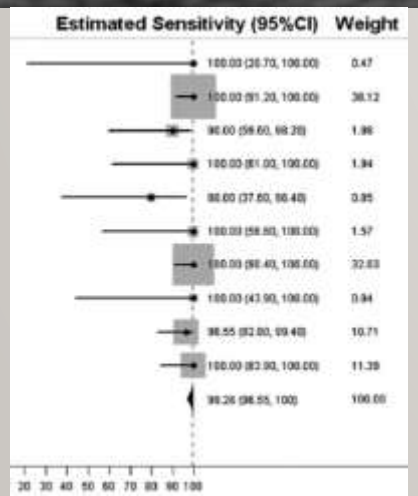


- Rule in IUP
- If there is a viable IUP – can we rule out ectopic in conjunction with a clinical risk assessment?
- Heterotopic 0.08% of natural pregnancies*

EVIDENCE

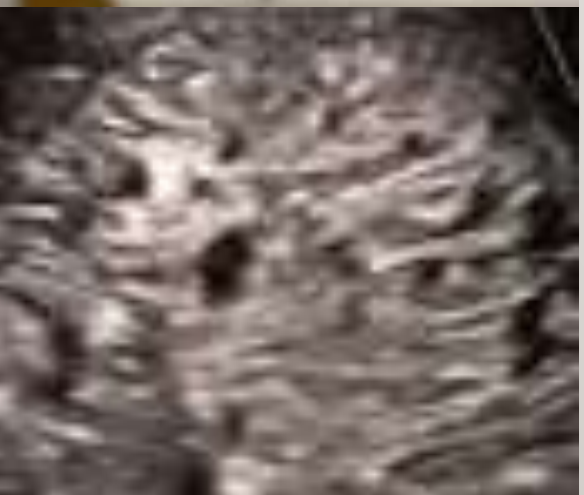






- IUP diagnosed by the identification of a gestational sac with a double decidual sac, yolk sac and foetal pole
- ED POCUS sensitivity estimate of 99.3% (95% CI: 96.6% to 100%) [Stein, 2010]
- Reduced ED Length of Stay of 63 minutes (95% CI: 26-99, *P*=0.0008)
- Reduced Time to Ultrasound of 71 minutes (95% CI: 41-101, *P*<0.00001)
- Bedside ultrasound is the single most useful diagnostic test

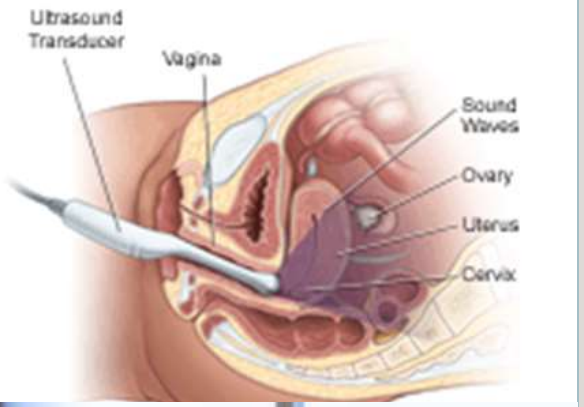
IN PRACTICE



- ED doctors using TVUS able to diagnose the presence or absence of viable IUP with 93.3% correlation with an expert ($P<0.001$) [Macvane, 2012]
- 12% of patients unplanned returns within 2 weeks, majority initially managed in the POCUS arm (20% POCUS vs 5% RADUS, $P<0.05$) [Wilson, 2016]
- No differing diagnosis in unplanned group. 2 planned returns identified retained products and molar pregnancy

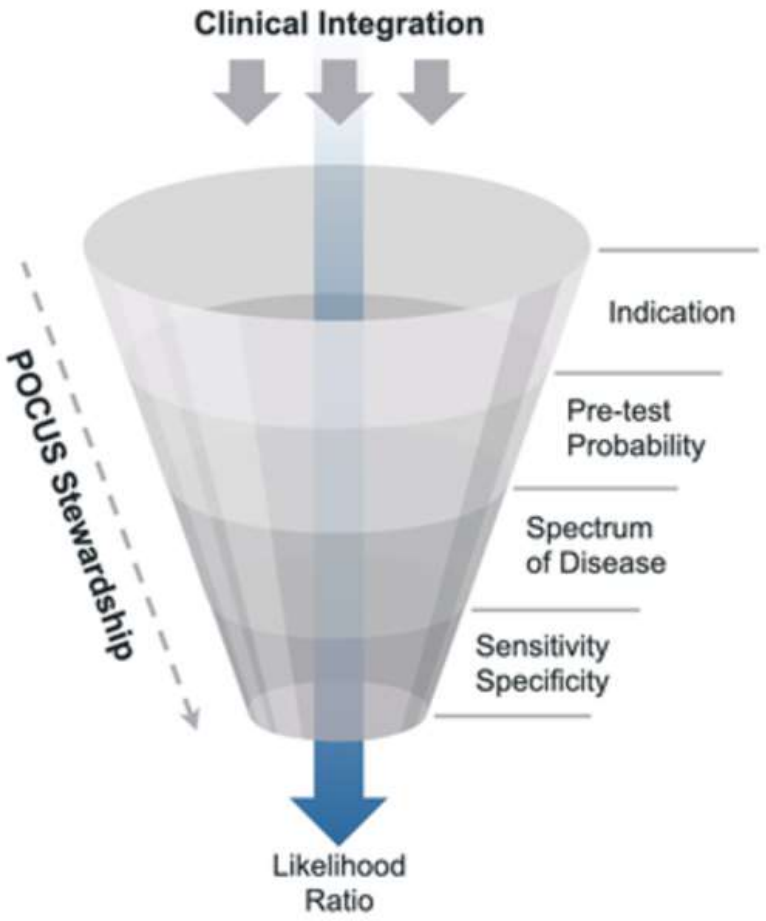
WHAT ARE OTHER HEALTH SERVICES DOING?

Transvaginal Ultrasound



- ACEP states that bedside pelvic ultrasound is a "fundamental skill"
- 88-95% of women finding transvaginal ultrasound acceptable and only 0.7% finding it to be more uncomfortable than expected [Barnhart, 2011]
- Patients found there to be a "disconnect" regarding the ED's role in the provision of care [Rojas-Luengas, 2019]
- After waiting in busy Emergency Departments they were often streamed to EPAUs for full assessment 12-72 hours later

WHAT IS NEEDED TO MAKE IT WORK?



- Robust, structured training
- Safety net/patient information/documentation and stewardship
- Advanced modular options and credentialing beyond the basic/post-graduate degrees?
- Local governance processes with gynaecology/radiology support

THANK YOU