



**Emergency  
Care Institute**  
NEW SOUTH WALES



**ACI** NSW Agency  
for Clinical  
Innovation

# IN THE OVEN?

*Learning from our Incidents:*  
**RED FLAGS in the Emergency Department**



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# The case

*A 31 year old female presented to ED with one-hour history of abdominal pain. Pain described to be sudden-onset and located centrally.*

*With the exception of low BP (80/54), all observations were within normal range at triage.*

*Given triage category 3.*

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# The case

*When assessed by a registrar, patient reported three-week history of PV spotting and having been given a recent diagnosis of miscarriage with decreasing serial  $\beta$ hCG results.*

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**What further information would you want to complete your assessment?**

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# The case

*At time of registrar assessment, systolic BP had improved to 100, HR was 67 and pain had improved significantly with minimal analgesia.*

*Some mild central abdominal tenderness was noted on examination.*

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# The case

*$\beta$ hCG found to be 1488 (most recent 2139).*

*Patient was discussed with the O&G team, who suggested patient should be discharged home if pain minimal, with a plan to attend Early Pregnancy Assessment Service (EPAS) the next day.*

*On discharge, the patient's systolic BP was approximately 90 mmHg.*

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# The case

*When she returned to EPAS the next day, an ultrasound showed a **left-sided ectopic pregnancy**.*

*A left salpingectomy was performed later that day.*

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# What is the lesson here?

**A diagnosis of ectopic pregnancy should be considered when assessing any woman of childbearing age.**





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# What's the evidence?

- Ectopic pregnancy is estimated to affect 20.7 of every 1000 pregnancies<sup>1</sup>.
- The prevalence of ectopic pregnancy is estimated to be between 6% to 16% among women who present to an ED with pain and/or vaginal bleeding during the first trimester<sup>2</sup>.

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# What's the evidence?

- **Delayed diagnosis increases maternal morbidity and mortality<sup>1</sup>.**
- Ectopic pregnancy accounts for approximately 9% of all maternal deaths and 80% of deaths within the first trimester.
- Half of the deaths from ectopic pregnancy were attributable to diagnosis being confused with other pathologies such as intrauterine pregnancies, spontaneous abortions, sequelae of induced abortion, pelvic inflammatory disease, gastrointestinal disorders, and psychiatric disorders<sup>3</sup>.

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# What's the evidence?

- Up to 40% of women with ectopic pregnancy are not diagnosed by clinicians on their first presentation to an ED<sup>4</sup>.
- Diagnostic pitfalls that resulted in delayed care were reviewed by Abbott *et al.* finding that delays most commonly occurred in patients with a benign examination or “atypical” pain<sup>5</sup>.
- It is now widely accepted that history and examination should not be relied upon to diagnose or exclude ectopic pregnancy<sup>6</sup>.

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# What's the evidence?

- **Ectopic pregnancy may be missed if a clinician fails to consider pregnancy.** A pregnancy test should be obtained in all women of childbearing potential who present with abdominal pain<sup>7</sup>. If found to be pregnant, only identification of intrauterine pregnancy by transvaginal ultrasound safely rules out ectopic pregnancy in patients<sup>1</sup>.
- Heterotopic pregnancy is a rare situation when there is an intra-uterine and extra-uterine pregnancy occurring simultaneously. The estimated incidence in the general population is estimated at 1:30,000 (for a naturally conceived pregnancy). The incidence among patients with assisted reproduction is higher and is thought to be around 1-3:100. Due to this, the overall incidence has increased over the years 9,10.

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# Access the ECI Clinical Tool: Per Vaginal Bleeding

<http://www.ecinsw.com.au/per-vaginal-bleeding>

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