Scottish Audit of the Management of Early Pregnancy Loss

May 2003

Audit conducted by the Scottish Programme for Clinical Effectiveness in Reproductive Health
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We acknowledge the assistance of the Picker Institute in development of the patient questionnaire.

We would like to acknowledge that without the co-operation of a large number of staff listed here, and other staff who participated in the site visits and staff survey, and who distributed patient questionnaires this audit would not have been possible.

We would particularly like to thank the women who took the time to complete the patient questionnaire at a difficult time in their lives.
Confidentiality and Anonymity

The Scottish audit of the management of early pregnancy loss was undertaken to assist colleagues in Obstetric & Gynaecology services in Scotland to assess the organisation of, and care provided in, the early pregnancy loss services for which they are responsible. Audit results relating to individual O&G services will remain confidential and results on the performance of individual services are therefore presented in this report in an anonymised form. Each service has been allocated a number and the lead clinician at each service has been informed of the number allocated to his/her unit. Professionals can therefore compare their own performance against the range of performance achieved by their peer group services.

Where results of individual services are presented, every effort has been made to reflect accurately the findings from the site visits, case note review and patient survey. Any inaccuracies or transcription errors are entirely the responsibility of the SPCERH team, and we apologise for any that may have arisen.

Glossary

Anti-D Anti-D immunoglobulin
ATLS Advanced Trauma Life Support
B-hCG Serum beta human chorionic gonadotrophin
CI Confidence interval
EPAU Early pregnancy assessment unit
EPL Early pregnancy loss
Includes first trimester miscarriage and ectopic pregnancy
ERPoC Surgical evacuation of retained products of conception
ISD Information and Statistics Division for NHS Scotland
O&G service A hospital or hospitals where a distinct team of O&G consultants leads care for pregnant women. Intrapartum care is provided in a single consultant-led labour ward but gynaecological services may be spread over several hospitals.
RCOG Royal College of Obstetricians & Gynaecologists
SMR 1 Scottish morbidity record 1
SMR 2 Scottish morbidity record 2
SPCERH Scottish Programme for Clinical Effectiveness in Reproductive Health
USS Ultrasound scan(ning)
EXECUTIVE SUMMARY

Between October 2001 and May 2003, SPCERH undertook a national audit to assess the care given to women with miscarriage and ectopic pregnancy in 15 Scottish O&G services against standards developed from national guidance documents.

Audit Methods

Thirty-five audit criteria covering nine areas of care were developed. Three principal audit tools were used:

**Site visits:** All O&G services participated in site visits to assess service provision and a total of 56 members of staff, including consultant obstetricians and gynaecologists, midwives and nurses running Early Pregnancy Assessment Units (EPAUs), middle grade medical staff, and ultrasonographers, were interviewed.

**Case note review:** Two retrospective case note reviews were conducted. A six-month review of miscarriages involved 934 case records. A twelve-month review of ectopic pregnancies involved 324 records. Local audit assistants extracted data from case records.

**Patient survey:** A prospective survey during 4 months. A 37% (649 replies) response rate was achieved from administering 1750 questionnaires. Eligible women for inclusion included women with early pregnancy loss and women with threatened miscarriage.

Audit Findings

**Service Provision**

In summer 2002, 14 of the 15 services provided a dedicated early pregnancy assessment unit. However, the range of facilities offered varied markedly from an outpatient diagnostic service to a unit where diagnosis, treatment and follow up are provided. Only one EPAU was fully operational at weekends.

**Staff Training**

Despite recommendations from the Royal College of Obstetricians & Gynaecologists that staff should be trained in the emotional aspects of early pregnancy loss, only 30.9% of staff had undergone any form of training.

**Terminology**

Women reported low usage of the inappropriate terms “abortion” (4.2% of women reporting use) and “blighted ovum” (5.9% of women reporting use) by health professionals. Documentation of inappropriate terminology was low within the case note review with 10% of records containing the term “abortion” (within the context of miscarriage) and 5.2% containing “blighted ovum”.

**Diagnosis**

Provision of ultrasound equipment and access was excellent with >90% women scanned within 24 hours. The majority of services have not implemented a register of staff trained in ultrasound scanning as proposed by the document “Guidance on Ultrasound Procedures in Early Pregnancy”.
Management of Miscarriage
Only 31% of patient survey responders were offered the options of expectant, medical and surgical management. Case note review reveals that surgical treatment remains the most common method for treatment, with 67.9% of women diagnosed with silent or incomplete miscarriage, treated by evacuation of retained products of conception. Under-utilisation of medical management was found, with only three services achieving levels in excess of 20% for this form of treatment.

Compliance with opportunistic testing of women for *Chlamydia trachomatis*, as proposed by SIGN guideline 42, was poor with only 20% of women less than 25 years old tested and only three services achieving levels above 50%.

Management of Ectopic Pregnancy
Overall 58% of women were treated by minimal access techniques. However, there were wide variations in the use of laparoscopy for treatment with five services achieving levels below 20% and seven services achieving levels above 75%.

There was high compliance with the RCOG recommendation of salpingectomy for women with a healthy contralateral fallopian tube, with 91% of such women undergoing this type of surgery.

Prevention of Rhesus Sensitisation
Poor documentation is highlighted, particularly for rhesus negative women miscarrying after 12 weeks gestation (37.5% with no documentation of anti-D administration) and rhesus negative women with ectopic pregnancies (10.6% with no documentation of anti-D administration).

Histology
Wide variations in the percentage of miscarriages sent for histological examination was found. Overall, 71% of eligible case records contained evidence of pregnancy tissue sent for histological examination.

Follow up and Counselling
Very high levels of patient satisfaction were reported with the emotional and psychological support offered. Responses from 649 women indicate that 88% rated the level of this support as either excellent or very good. However, in 38% of patients who experienced early pregnancy loss no follow up was arranged or advised.
Recommendations for Early Pregnancy Assessment Services in Scotland

The following 10 recommendations are based on this audit’s findings and take into account the views of the steering group that met on 7th May 2003 and reviewed the findings.

1. O&G services should provide an EPAU located within a dedicated area avoiding contact with maternity patients and staffed by a dedicated team. Initial assessment, investigation, peri-operative management/care and follow up should be available within the EPAU.

2. O&G services should explore the feasibility of providing EPAU services over the weekend, perhaps by utilising regional planning and managed clinical networks.

3. A lead clinician in each service should maintain a record of staff adequately trained to undertake early pregnancy ultrasound. As a minimum the record should be formally reviewed six monthly. New employees should be assessed by the lead clinician prior to inclusion in the register. Usually inclusion in the register would require past attendance at a recognised training course.

4. O&G services should explore the feasibility of improving patient choice by introducing medical management for miscarriage.

5. Each service should develop a local written policy on Chlamydia testing for EPL patients. As a minimum all women < 25 years old undergoing surgical ERPoC should be offered testing. Ideally, all women < 25 years old, and others at risk of *Chlamydia trachomatis* infection (as defined by SIGN guideline 42), presenting to the service should be offered testing.

6. Primary treatment of women with suspected ectopic pregnancy who are clinically shocked is immediate laparotomy.

7. O&G services should ensure that women have access to laparoscopic treatment for ectopic pregnancy by providing an adequate number of trained consultants and appropriate surgical transfer arrangements.

8. Use of a structured case record */"rhesus stamp* in the case records would serve as a form of patient-specific reminder. This stamp should summarise situations where anti-D is needed and provide space to record rhesus status, and dose, time and date of anti-D administration.

9. Histological examination is recommended to help exclude diagnoses of trophoblastic disease or ectopic pregnancy.

10. Services should explore alternative methods (Fax/Email) of information transfer to General Practitioners.
Background and Methods

Miscarriage is the most common complication of pregnancy. The literature reports 10 to 20% of clinical pregnancies end with miscarriage. In Scotland, using SMR 1 and SMR 2 returns, 4206 miscarriages were registered with ISD in 1998/1999. However, this is likely to underestimate the true number of miscarriages because some women will be managed entirely in primary care and others may be seen at hospital but not admitted, consequently not being recorded within the SMR registers. In the past, management of early pregnancy loss (EPL) has often been unsatisfactory with long delays between referral from primary care to assessment and treatment within secondary care.

Ectopic pregnancy is of considerable medical importance because of the associated risk of maternal death, sterility and adverse outcome in subsequent pregnancies. Within the UK Confidential Enquiry into Maternal Deaths triennial reports, substandard care has been repeatedly highlighted in this group of women.

SPCERH conducted a national audit exercise of EPL management for three key reasons:
- EPL is a common and important reproductive health care problem.
- A new method of service delivery, the early pregnancy assessment unit (EPAU), has been introduced into the health service over the past decade.
- New health technologies have been introduced into EPL care over the past decade. For treatment of miscarriages there has been the introduction of medical treatment. Surgical options have changed for ectopic pregnancy with the use of minimal access techniques. Furthermore, clinicians have used drugs to treat ectopic pregnancies leading to the avoidance of surgery.

Development of Audit Criteria

Thirty-five audit standards, involving nine areas of care, were developed after reviewing national guidance documents and conducting a review of literature.

The principal guidance documents used were:
- The National Medical Advisory Committee report “The management of early pregnancy loss.”
- The RCOG 33rd study group “Problems in Early Pregnancy: Advances in Diagnosis and Management.”
- The RCOG green-top guideline “the management of early pregnancy loss.”
- The RCOG green-top guideline “the management of tubal pregnancies.”

The areas of care were:
1. Service provision
2. Staff education
3. Use of appropriate terminology
4. Diagnosis of pregnancy loss (including ultrasound scanning and serum B-hCG)
5. Miscarriage management
6. Ectopic pregnancy management
7. Prevention of Rhesus sensitisation
8. Histology
9. Follow up and psychological aspects of early pregnancy loss

These audit standards were reviewed and approved by a multi-disciplinary steering group consisting of health care professionals from Scotland, representatives from the Scottish Executive and lay representatives. The members of the steering group are listed at the front of this document.
Selection of Services
For the purposes of this audit an Obstetric and Gynaecology service providing care for women and their partners who experience early pregnancy loss was defined as a hospital or hospitals where a distinct team of O&G consultants leads care for pregnant women. Intrapartum care is provided in a single consultant-led labour ward but gynaecological services may be spread over several hospitals.

These services were divided into five groups, which reflect the diversity of services found throughout Scotland, viz

- University Teaching Hospitals
- Large District General Hospitals (defined as registering with ISD >250 miscarriages per year)
- Small District General Hospitals (defined as registering with ISD < 250 miscarriages per year)
- Remote and Rural Hospitals
- Split Site Institutions

From this list, three services from each group were randomly selected, using SPSS, and invited to participate in the audit exercise. All services invited to participate agreed. Therefore, 15 O&G services were involved in the project representing 19 hospitals. Within one of the split site services (number 12), one component hospital participated only in the site visit elements of the audit. Due to organisation changes within the service, this hospital did not participate in the case note review or patient questionnaire part of the audit. Within a second split site service (number 3), one component hospital did not participate within the patient questionnaire and did not provide data for ectopic pregnancy management from the case note review.

Measurement of current practice
A range of audit tools was used within this audit exercise to build a picture of EPL care within the 15 services. For some audit criteria only one tool was used for assessment. However, for other criteria more than one tool was used. The three audit tools used within this audit exercise were:

- Site visits involving structured interviews
- Case note review
- Patient questionnaire

Furthermore, a staff postal questionnaire was administered. The main purpose of this questionnaire was to allow pre- and post-feedback assessment of practice. However, for one audit criterion the staff survey was used as the primary audit tool. Full results from the staff survey will be distributed to each service after completion of the post-feedback assessment.

Site Visits
All site visits were conducted by Martin Cameron and occurred between March 2002 and July 2002. Eighteen hospitals were visited. Individual face to face interviews were conducted at each hospital with the local lead clinician, a member of the midwifery or nursing staff involved with early pregnancy loss and another member of staff selected by the local lead clinician. Telephone interviews were conducted for one hospital (part of a split site institution) because it was more convenient for the members of staff. The purpose of these visits was to:

- Obtain factual information about service provision.
- Identification of factors that might help or hinder implementation of key audit standards.
- Identification of clinical staff for the postal questionnaire survey and targeting of interventions.
- Identification of a local audit assistant for the case note review.
- View the facilities available to women with symptoms of EPL.

A total of 56 interviews were conducted with a minimum and maximum of two and four interviews respectively at each hospital.
Case Note Review

Two retrospective case note reviews were performed:
1. Miscarriage review covering six month period 1.2.02 to 31.7.02
2. Ectopic pregnancy review covering 12 month period 1.8.01 to 31.7.02

Entry criteria for inclusion within the case note review were:
- First Trimester (defined as \( \leq 14 \) weeks +0 days from LMP)
- Miscarriage
  - missed
  - incomplete
  - complete
  - septic
  - inevitable
- Ectopic pregnancy

Exclusion criteria for the review were:
- Gestation>14 weeks from LMP
- Threatened miscarriage (i.e. viable pregnancy)
- Non-pregnant women who present to EPAU
- Women who have undergone termination of pregnancy and develop complications
- Gestational Trophoblastic Disease

Local audit assistants from each hospital attended a training session on 22.08.02 organised by SPCERH. Cases were identified through local hospital registers (ward and EPAU diaries and theatre books). A random selection of cases, from those identified, was sampled. The number of case notes to be reviewed for each hospital was based on a formal power calculation in order to provide reasonably precise estimates of practice.

To improve consistency of data collection between services, an instruction book on completion of the extraction form was prepared. The audit assistants could also discuss any individual case with members of the SPCERH team by telephone. Finally, Martin Cameron read all returned forms. Where inconsistencies or missing data were identified the audit assistant was contacted for clarification.

Data was entered into an SPSS database for analysis. Ten percent of the entries were checked for inconsistencies in data entry.

In total 934 case records of miscarriages and 324 records of ectopic pregnancies were reviewed. Total numbers of cases identified, categories of miscarriages and sample sizes for each service are illustrated within tables 1 to 4.
Table 1: Total number of case records identified by local audit assistants for miscarriage and ectopic pregnancy case note review

<table>
<thead>
<tr>
<th>O&amp;G service</th>
<th>Total number of miscarriages identified</th>
<th>Total number of ectopic pregnancies identified</th>
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<td>353</td>
<td>62</td>
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<tr>
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<td>15</td>
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Table 2: Calculated sample size and actual records reviewed for miscarriages in the case note review

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<th>O&amp;G service</th>
<th>Calculated sample size</th>
<th>Records reviewed</th>
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Table 3: Categories of miscarriages in the case note review

<table>
<thead>
<tr>
<th>Category</th>
<th>Frequency</th>
<th>Percent</th>
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</thead>
<tbody>
<tr>
<td>Complete miscarriage</td>
<td>311</td>
<td>33.3</td>
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<tr>
<td>Incomplete miscarriage</td>
<td>105</td>
<td>11.2</td>
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<tr>
<td>Silent miscarriage</td>
<td>420</td>
<td>45.0</td>
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<tr>
<td>Early fetal demise</td>
<td>98</td>
<td>10.5</td>
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<tr>
<td>Total</td>
<td>934</td>
<td>100.0</td>
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Table 4: Calculated sample size and actual records reviewed for ectopic pregnancies in the case note review

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<th>O&amp;G service</th>
<th>Calculated Sample size</th>
<th>Records Reviewed</th>
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Patient Questionnaire
A patient questionnaire was developed with help from the Picker Institution. Multi-centre research ethics committee approval was obtained prior to administration. The survey took place between December 2002 and March 2003 (inclusive).

Entry criteria for the questionnaire were:
- Women with Miscarriage (<14 weeks gestation)
- Women with Ectopic Pregnancy
- Women with Threatened Miscarriage (<14 weeks gestation) but who have a continuing pregnancy.

Exclusion criteria were:
- Inability to understand written English
- Women who are less than 16 years old

The anonymous questionnaires were given to women on discharge from the O&G service by midwifery and nursing staff. Women were asked to complete the questionnaire and post it to SPCERH’s Edinburgh Office in a paid business reply envelope. No opportunity was available to re-mail non-responders.

Returned questionnaires were entered into an Access database and analysed in SPSS.

From 1750 questionnaires distributed 649 were returned representing an overall response rate of 37%. Response rates varied markedly among O&G services, ranging from 20% to 61% (Shown in Table 5). The large variation in the number of cases assessed per service and possible response bias associated with lower response rates should be noted in the interpretation of results from this audit tool.

Table 5: Response Rates for Patient Questionnaire

<table>
<thead>
<tr>
<th>O&amp;G Service</th>
<th>Number of replies</th>
<th>Number of questionnaires administered</th>
<th>Calculated % response rate</th>
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<tbody>
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Staff Postal Questionnaire

A questionnaire was mailed to staff involved with EPL care in December 2002. Two reminders were sent before close of the database. Staff were identified by discussion with local lead clinicians and nursing/midwifery staff running EPAUs. Staff members invited to participate included:

- All medical O&G staff including Consultant Obstetricians & Gynaecologists, Specialist Registrars in O&G, Staff grade and Associate Specialists and Senior House Officers in O&G (Career grade and GP trainees)
- Midwives and nurses working within EPAUs
- Midwives and nurses working outside EPAUs but contributing significantly to the care of women with EPL
- Ultrasonographers who provide scanning for EPAU patients

Three hundred and seventy nine replies were received from a mailing list of 570 persons representing a response rate of 66.5%.
Format of Feedback

Audit Criteria and Grade
The audit criteria were developed from recommendations in national guidance documents and were graded as follows:

A  Requires at least one randomised-controlled trial as part of a body of literature of overall good quality and consistency addressing the specific recommendation.

B  Requires the availability of well conducted clinical studies, but no randomised clinical trials on the topic of the recommendation.

C  Requires evidence obtained from expert committee reports or opinions and/or clinical experience of respected authorities. Indicates an absence of directly applicable clinical studies of good quality.

Good practice points. Recommended best practice based on the clinical experience of the audit steering group.

Rationale
A brief summary of the rationale for each audit criterion.

Guideline documents
A brief summary of the supporting evidence from national guidance documents for each audit criterion.

Method of Assessment
How site visit, case note review, patient and staff questionnaire data were used to measure adherence to the audit criterion.

Results
Most graphs are displayed as error bar charts with the 95% confidence intervals displayed. Pooled data for all services is also displayed. Finally, a horizontal line highlights the median service.

Comment
Commentary on overall pattern, including average compliance and variations among O&G services.
2 Results

SERVICE PROVISION

Criteria

1. All services should provide a dedicated unit for the assessment of early pregnancy problems.
2. The early pregnancy assessment unit should be sited in a dedicated area outwith the general obstetric ultrasound department and the general gynaecology ward.
3. The unit should be available daily (including Saturday & Sunday).
4. There should be direct access for GPs.
5. There should be direct access for other health care professionals (A&E Departments, community midwives).

(All Grade C)

Rationale

Early pregnancy assessment units provide multiple benefits to both patients and the NHS. A review article summarises many of these benefits which are shown in Table 6. (From 3)

Table 6 Advantages of an EPAU

<table>
<thead>
<tr>
<th>Benefits to Patients</th>
<th>Reduced Waiting Time</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Admission Prevented</td>
</tr>
<tr>
<td></td>
<td>Better reassurance and support</td>
</tr>
<tr>
<td></td>
<td>Only one vaginal examination</td>
</tr>
<tr>
<td>Benefits to Medical Staff</td>
<td>Better service for GPs</td>
</tr>
<tr>
<td></td>
<td>Reduced workload for A&amp;E staff</td>
</tr>
<tr>
<td></td>
<td>Better training and support for gynaecologists</td>
</tr>
<tr>
<td></td>
<td>Less out of hours operating</td>
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<tr>
<td>Benefits to Health Service</td>
<td>Prevent an admission</td>
</tr>
<tr>
<td></td>
<td>Reduce length of stay</td>
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<tr>
<td></td>
<td>Saving for Health Authority/Trust</td>
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</tbody>
</table>

Provision of this form of unit in a dedicated area is considered important. Location outwith the obstetric ultrasound department and general gynaecology ward avoids contact with pregnant women at an advanced gestation or women undergoing termination of pregnancy.

Women can begin to bleed at anytime during the week. Therefore, a seven-day unit would be the ideal in terms of equity for all women with early pregnancy loss.
Women are likely to access general practitioners, community midwives or hospital A&E departments if they bleed in early pregnancy. Therefore, these practitioners should be able to refer to EPAUs.

Attempting to define an “ideal” EPAU is difficult but SPCERH’s interpretation would include a unit that is in a dedicated physical space that can offer diagnosis, treatment and follow up to women with miscarriage and ectopic pregnancy.

**Guideline Documents**

Providers should give serious consideration to the establishment of an early pregnancy assessment unit (EPAU) where local circumstances suggest that this may be worthwhile.  

All units should provide an early pregnancy assessment service with direct access for GPs and patients. Ideally, the service should be sited in a dedicated area with appropriate staffing. It should be available on a daily basis, at least during the normal week.

All Departments of Obstetrics and Gynaecology should aim to provide an early pregnancy assessment unit, which permits direct access by the patient to clinical services. The service should include the provision of comprehensive information; continuity of care; counselling and support; access to senior specialised personnel. The unit should be situated in a dedicated area of the obstetrics and gynaecology accommodation.

Direct access to the appointments system should be available to all practitioners in the primary care setting (including GPs, nurses, midwives and health visitors) as well as to other hospital departments (e.g. accident and emergency).

**Method of assessment**

*Site visits:*

- Combination of information obtained from semi-structured interview and also inspection of the facilities.

**Results**

Fourteen O&G services stated they provided an early pregnancy assessment unit. One service (no. 4) operated a medical on call service and did not provide a formal EPAU. Two of the three split site services had EPAUs in one hospital but not their sister hospital (no. 10, 12). Within the other split site service, all hospitals operated an EPAU.

However, the range of services offered by each EPAU and its location within the hospital varied markedly between different services. (See Table 7)

Fourteen EPAUs operated a Monday to Friday service during office hours. Two EPAUs were open seven days per week. However, only one of these EPAUs (no. 2) offered formal ultrasound scanning sessions on Saturday and Sunday. The other EPAU (no.1) only offered formal scanning sessions Monday to Friday.

All EPAUs stated they accepted direct referral by general practitioners and community midwives to EPAU staff. Thirteen EPAUs also accepted direct referral from Accident & Emergency (A&E) staff. One EPAU (no. 7) required discussion with on call medical staff prior to referral to EPAU by A&E staff. Within two EPAUs (no. 9 and 14) medical staff stated that discussion with on call medical staff was required prior to EPAU referral; however, the EPAU nursing staff stated they did accept direct referrals from A&E.
Table 7: Characteristics of EPAUs within the 15 O&G services

<table>
<thead>
<tr>
<th></th>
<th>EPAU Base</th>
<th>USS</th>
<th>Primary Scanner</th>
<th>Base for surgery: Miscarriages</th>
<th>Post-op care: Staff involvement</th>
<th>Base for surgery: ectopic pregnancies</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Stand alone unit</td>
<td>Obstetric Scan Department</td>
<td>Ultrasonographer</td>
<td>EPAU</td>
<td>EPAU</td>
<td>Gynaecology ward</td>
</tr>
<tr>
<td>2</td>
<td>Stand alone unit</td>
<td>Within EPAU</td>
<td>Ultrasonographer</td>
<td>EPAU</td>
<td>EPAU</td>
<td>Gynaecology ward</td>
</tr>
<tr>
<td>3</td>
<td>Obstetric Ultrasound</td>
<td>Within EPAU</td>
<td>EPAU midwife</td>
<td>Maternity ward</td>
<td>Ward</td>
<td>Gynaecology ward</td>
</tr>
<tr>
<td>4</td>
<td>Outpatients</td>
<td>Within EPAU</td>
<td>EPAU nurse</td>
<td>Gynaecology Ward</td>
<td>Ward</td>
<td>Gynaecology ward</td>
</tr>
<tr>
<td>5</td>
<td>Stand alone unit</td>
<td>Within EPAU</td>
<td>Medical staff</td>
<td>Gynaecology Ward</td>
<td>Ward</td>
<td>Gynaecology ward</td>
</tr>
<tr>
<td>6</td>
<td>No EPAU</td>
<td>Not applicable</td>
<td>Medical staff</td>
<td>Gynaecology Ward</td>
<td>Not applicable</td>
<td>Gynaecology ward</td>
</tr>
<tr>
<td>7</td>
<td>Outpatients</td>
<td>Within EPAU</td>
<td>Ultrasonographer</td>
<td>Gynaecology Ward</td>
<td>Ward</td>
<td>Gynaecology ward</td>
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<tr>
<td>8</td>
<td>Maternity ward</td>
<td>Within EPAU</td>
<td>EPAU midwife</td>
<td>Maternity ward</td>
<td>Ward</td>
<td>Gynaecology ward</td>
</tr>
<tr>
<td>9</td>
<td>Outpatients</td>
<td>Within EPAU</td>
<td>Ultrasonographer</td>
<td>Gynaecology Ward</td>
<td>Ward</td>
<td>Gynaecology ward</td>
</tr>
<tr>
<td>10</td>
<td>Stand alone unit</td>
<td>Within EPAU</td>
<td>EPAU midwife</td>
<td>Gynaecology Ward</td>
<td>EPAU</td>
<td>Gynaecology ward</td>
</tr>
<tr>
<td>11</td>
<td>No EPAU</td>
<td>Not applicable</td>
<td>Medical staff</td>
<td>Gynaecology Ward</td>
<td>Not applicable</td>
<td>Gynaecology ward</td>
</tr>
<tr>
<td>12</td>
<td>Stand alone unit</td>
<td>Within EPAU</td>
<td>Ultrasonographer</td>
<td>Gynaecology Ward</td>
<td>Ward</td>
<td>Gynaecology ward</td>
</tr>
<tr>
<td>13</td>
<td>Gynaecology ward</td>
<td>Obstetric Scan Department</td>
<td>Ultrasonographer</td>
<td>Gynaecology Ward</td>
<td>Ward</td>
<td>Gynaecology ward</td>
</tr>
<tr>
<td>14</td>
<td>No EPAU</td>
<td>Not applicable</td>
<td>Medical staff</td>
<td>Gynaecology Ward</td>
<td>Not applicable</td>
<td>Gynaecology ward</td>
</tr>
<tr>
<td>15</td>
<td>Maternity ward</td>
<td>Radiology Department</td>
<td>Ultrasonographer</td>
<td>Maternity ward</td>
<td>EPAU</td>
<td>Gynaecology ward</td>
</tr>
</tbody>
</table>

Comment
Wide ranges of care models were found within Scotland for the EPAU. The facilities offered by the EPAUs ranged from an outpatient diagnostic service with women referred to another ward for treatment to a more holistic approach with diagnosis, treatment and follow up available within the EPAU. All EPAUs fulfilled the minimum criteria defined by the RCOG of offering a Monday to Friday service but it is disappointing that only one service operated fully at weekends. All services provided access for primary care health professionals and the majority accepted A&E referrals.
STAFF TRAINING

Criterion

6. Education and training should be made available for all health care professionals involved in the management of couples experiencing early pregnancy loss - emphasis should be placed upon the emotional and psychological aspects of early pregnancy loss and on sound theoretical knowledge of loss and grief. (Grade C)

Rationale

- Couples’ experiences of early pregnancy loss are often negative especially with regard to aftercare.
- Training of staff will improve their ability to provide care to these couples.

Guideline Documents

Education and training should be made available for all health care professionals involved in the management of couples experiencing early pregnancy loss. Emphasis should be placed upon the emotional and psychological aspects of early pregnancy loss and on sound theoretical knowledge of loss and grief.

Medical, nursing and ultrasonography staff should be trained in counselling skills, support techniques and other issues around loss. It is recommended that in pregnancy, ultrasonic diagnosis, repeated testing and the uncertainties of the outcome might lead to substantial anxiety in the women under care.

Method of assessment

Staff survey

Pooled results are presented.

- Proportion of staff reporting having had some training in emotional/psychological aspects of EPL.
- Type of training experienced by staff.

Results

To the question “Have you had any training in emotional or psychological aspects of early pregnancy loss?” we received 362 answers. A total of 112 (30.9%) staff members indicated they had received training in this aspect of care. Fifty four (14.9%) staff members stated that this training had been a formalised course organised by an agency such as a University or Professional body with the remaining staff receiving “in house” training.

Comment

Despite guidance documents stressing the importance of counselling courses and training in the emotional aspects of pregnancy loss, the majority of staff have not been given any training.
TERMINOLOGY

Criterion

7. Language, which is employed to describe early pregnancy loss, should be acceptable and sensitive to the needs of individuals. (Grade C)

Rationale
- Using terminology such as abortion, blighted ovum, failed pregnancy, incompetent cervix, abnormal chromosome material, and abnormal pregnancy may have medical meanings for health care professionals but women may interpret them very differently.
- These negative terms may reinforce the feelings of failure, shame, guilt, insecurity and depression experienced by many couples suffering pregnancy loss.

Guideline Documents
Language, which is employed to describe early pregnancy loss, should be acceptable and sensitive to the needs of individuals. 4

The medical term “spontaneous abortion” should be replaced with the term “miscarriage”. Appropriate terminology should also be used to describe the different types of miscarriage. 5

In early pregnancy loss the term “abortion” should be replaced. The recommended changes in terminology are:
- Spontaneous abortion should be replaced by miscarriage
- Blighted ovum or missed abortion should be replaced by early embryonic or fetal demise
- Incomplete abortion should be replaced by incomplete miscarriage 6

Method of assessment
Case note review
- Percentage of case records with the terms “abortion” and “blighted ovum” recorded.

Both miscarriage and ectopic pregnancy case records were reviewed for the use of terms “abortion” (within the context of miscarriage) and “blighted ovum.” Particular attention was paid to the initial clerking, ultrasound scan report and discharge letter. (Use of term “abortion” for termination of pregnancy did not constitute “inappropriate” terminology.)

From 1258 case records no data were available for 3 records for “abortion” and 4 records for “blighted ovum.”

Patient survey
- Percentage of women reporting the use, by health professionals, of the terms “abortion” and “blighted ovum” during their hospital episode.

All questionnaires received were analysed, representing a total of 649 women.
Results

Figure 1  Percentage of case records with the term "abortion" documented

Figure 2  Percentage of patients reporting "abortion" being used by staff
Figure 3  Percentage of case records with the term "blighted ovum" documented

Figure 4  Percentage of patients reporting "blighted ovum" being used by staff
Comment

Case note review
The overall percentage for documentation of the term “abortion” was 10% (95% CI 8.4% to 11.7%). The median value was 7.4% (O&G service 3). High use of the term “abortion” (>20%) was found in O&G services 4, 5, and 8.

The overall percentage for “blighted ovum” was 5.2% (95% CI 4.1% to 6.5%). The median value was 3.7% (O&G service 9). Only two services had levels above 10% - service 3 (11.6%) and service 15 (16%).

Patient survey
Only 4.2% of patients reported hearing “abortion” being used by members of staff (95% CI 2.9% to 6%). The median value was 3.3% (services 10 and 11). Within only one service (service 6) reporting extended beyond 10%.
For blighted ovum 5.9% (95% CI 4.3% to 7.9%) of patients reported hearing this term. The median value was 8.3% (service 5). Only within two services (services 4 and 7) did reporting extend beyond 10%.

In conclusion, there was low usage of inappropriate terminology by health professionals.
**DIAGNOSIS & INVESTIGATION**

**ULTRASOUND SCANNING**

**Criterion**

| 8. The Clinical Directorates of both Radiology and Obstetrics should maintain, on a continuous basis, a register of those personnel considered to be adequately trained and experienced in obstetric ultrasound. (Grade C) |

**Rationale**
- It is unacceptable for inadequately trained staff to diagnose non-viable pregnancies and instigate treatment because of the risk of inadvertent evacuation of a viable pregnancy.

**Guideline Documents**
- This audit standard is taken directly from paragraph 3.1 of “Guidance on Ultrasound Procedures in Early Pregnancy”.

**Method of assessment**

- **Site visits**
- Reporting by staff members of provision of a register within the O&G service of personnel trained to perform ultrasound scans.

**Results**

- **Site visits**
- SPCERH was only able to assess O&G services with regard to formal registers of trained ultrasound staff. We were unable to identify whether radiology departments kept separate lists.

  Four services stated they had a register of personnel trained in ultrasound scanning (services 8,9,13,15). The remaining services reported no register being kept within the O&G service.

**Comment**
- These results should be interpreted with caution. Although some services stated they had a register, SPCERH did not request evidence of this during the site visits. This self-reporting may lead to the liberal interpretation of the term “register” by some services compared to others. However, it appears that in the majority of services there is no established register of personnel trained in ultrasound scanning.
Criterion

9. The differential diagnosis between the types of miscarriage should be based on a combination of clinical and ultrasound findings. (Good practice point)

Rationale

- With an open cervical os and products visible, then ultrasound is clearly not required to make the diagnosis of inevitable miscarriage.
- However, assessment using recognised ultrasound criteria prevents the inadvertent evacuation of a viable pregnancy.

Guideline Document

The RCR/RCOG document “Guidance on Ultrasound Procedures in Early Pregnancy” defines criteria for ultrasound diagnosis of early fetal demise and silent miscarriage as:

- Gestation sac>20mm with no embryo or yolk sac
- Crown rump length>6mm with no fetal heart motion
- Serial ultrasound scans at least one week apart to assess growth

Method of assessment

Case note review:

- Proportion of silent miscarriages and early fetal demise that conform to RCR/RCOG guidance with regard to ultrasound criteria.

Results

Figure 5  Percentage of Silent Miscarriage & Early Fetal Demise diagnosed using RCR/RCOG guidelines

Comment

One would not expect 100% compliance with the RCR/RCOG ultrasound criteria because clinical situations may aid diagnosis. Consequently, high levels of compliance with the criteria for ultrasound diagnosis of silent miscarriage and early fetal demise were found in all services. The overall percentage compliance reached 86% (95% CI 83% to 89%) and the median service was 13 at 86% compliance. No silent miscarriages or early fetal demise were within the sampled case records from service 4. The lowest services (5 and 6) achieved 74% compliance with the RCR/RCOG ultrasound scan criteria.
Criterion

10. Women attending hospital for assessment of suspected early pregnancy loss should have an ultrasound scan within 24 hours of admission. (Good practice point)

Rationale

• Delayed access to ultrasound prevents diagnosis and instigation of treatment and counselling.

Guideline Documents

All patients who experience pain and/or bleeding in early pregnancy should have ready access to ultrasound. 4

Method of assessment

Case note review

• Proportion of patients who had documentary evidence of a scan within 24 hours of admission to the O&G service.

For case records when date, but no time was recorded, and where scanning occurred the day after admission, we have assumed that the ultrasound scan was performed within 24 hours.

Results

Figure 6 Access to USS within 24 hours of admission

Comment

Very high levels of access to ultrasound scanning were found in all services with an overall percentage compliance of 94% (95% CI 93% to 95%). The median service was number 1 with a percentage compliance of 93.6%.

However, one should remember that when precise times of admission and scanning were unavailable, we were generous in our interpretation that scanning occurred within 24 hours. Therefore, the results represent the “best” that could be achieved with this assumption applied. “Real” percentages of patients scanned within 24 hours may be slightly lower than those presented in the graph.
Criterion

11. The EPAU should have access to transabdominal and transvaginal ultrasound. (Grade C)

Rationale

- Transabdominal scanning alone is sufficient to perform an assessment of early pregnancy bleeding in only 58% of patients.\textsuperscript{10}
- Transvaginal ultrasound allows clearer visualisation of the uterine and adnexal contents.

Guideline Documents

EPAUs should have access to transvaginal ultrasound with staff appropriately trained in its use.\textsuperscript{5}

Up to date equipment, including abdominal and transvaginal probes, should be available at all times, and a rolling programme set in motion to replace existing equipment which is more than five years old.\textsuperscript{4}

All equipment used for early pregnancy scanning should be provided with a transvaginal transducer.\textsuperscript{9}

Method of assessment

Site visits

- Reporting by staff members of provision of transvaginal scanning facilities within the EPAU.

Results

All hospitals within all services had access to both transabdominal and transvaginal ultrasound probes.

Comment

Services were 100% compliant with audit criterion 11.
Criterion

12. Ultrasound reports should be produced using standardised documentation as proposed by the Joint Working Party of the RCR/RCOG. (Grade C)

Rationale

• Communication of ultrasound findings between health care professionals is needed when diagnosis is difficult.
• Adopting a comprehensive summary of ultrasound findings should reduce errors.

Guideline Documents

“Guidance on Ultrasound Procedures in Early Pregnancy” was published in 1995 by the RCOG/RCR after events that transpired in Wales in 1993. There had been a number of cases in which fetal death had been erroneously diagnosed by ultrasound examination.

A standardised report clearly signed and dated by the examiner was considered appropriate. The report should contain:
- the number of sacs and mean gestation sac diameter
- the regularity of the outline of the sac
- the presence of any haematoma
- the presence of a yolk sac
- the presence of a fetal pole
- the crown rump length measurement
- the presence or absence of fetal heart movements
Extra-uterine observations should include:
- the appearance of the ovaries
- the presence of any ovarian cysts
- the presence of any tubal mass
- the presence of any fluid in the Pouch of Douglas

Method of assessment

Case note review

• Proportions of ultrasound scan reports reporting an empty uterus that documented all three extra-uterine observations (either presence or absence): Ovaries, adnexal mass, and fluid in the Pouch of Douglas.
Results

Figure 7  Ultrasound documentation when empty uterus identified  
(sample:all case records n=554)

Comment
Poor documentation was found in the majority of services with the overall percentage of ultrasound scan reports containing all information only 32% (95% CI 28 to 36%). The median service was number 10 at 33.3% compliant. Only service 7 achieved a level above 80% and three other services (5, 11 and 12) achieving levels above 50%.
**Serum B-hCG**

**Criterion**

13. Serum B-hCG should be available and results from Serum B-hCG should be available to the clinician within 24 hours of being taken. (Good practice point)

**Rationale**
- Ectopic pregnancy is a potentially serious condition with rupture causing significant morbidity and mortality.
- Serum B-hCG is a useful adjunct for women with indeterminate ultrasound findings.
- A prolonged B-hCG doubling time is predictive of a pathological pregnancy - therefore, the B-hCG result should be available promptly.

**Guideline Documents**
We recommend that hCG estimation is essential for the following specific clinical situations:
- Screening in populations at high risk of ectopic pregnancy
- Determining the appropriate treatment for women with suspected ectopic pregnancy
- Monitoring during expectant management or medical management of women with ectopic pregnancy or miscarriage
- Evaluation of the completeness of conservative surgical treatment of ectopic pregnancy\(^6\)

**Method of assessment**

*Case note review*
- Proportion of second serum B-hCG (or first B-hCG if only one sample taken) results that are available within 24 hours.

For case records when date, but no time was recorded, and where serum B-hCG result was available the following day we have assumed that the result was available within 24 hours.
Results

Figure 8  Results of Serum B-hCG within 24 hours

Comment
Very high levels of reporting of serum B-hCG results to clinicians within 24 hours were found in all services. The overall percentage compliance was 95% (95% CI 92% to 97%) and the median service was number 10 at 97% compliance.

However, one should remember that when precise times of collection and reporting were unavailable, we were generous in our interpretation that reporting occurred within 24 hours. Therefore, the results represent the “best” that could be achieved with this assumption applied and actual compliance may be slightly lower.
14. Protocols and algorithms should be present for the “Indeterminate scan”/“Suspected ectopic pregnancy (inc. Serum B-hCG measurement).” (Grade C)

**Rationale**
- Protocols aid decision making for staff, particularly junior members of the clinical team.

**Guideline Documents**
EPAUs should use and develop diagnostic and therapeutic algorithms of care. In particular, these should include management of “suspected ectopic pregnancy” (including serum hCG) and the “indeterminate” ultrasound scan.  

Early pregnancy assessment units should develop diagnostic and therapeutic protocols for all categories of complications in early pregnancy. These should include access to transvaginal ultrasound equipment and rapid, sensitive hCG assays.

Each centre should establish appropriate protocols and algorithms for the management of patients using hCG measurement and these should be updated on the basis of evidence and local audit.

**Method of assessment**
**Site visits**
- Reporting of a guideline for the use of serum B-hCG or further management of the indeterminate scan.

No assessment was made by SPCERH to the suitability of the guideline available.

**Results**
14 O&G services stated they had a guideline for the indeterminate scan/use of serum B-hCG.
One service (no. 4) had no guideline.

**Comment**
Although services stated they had guidelines, no attempt has been made by SPCERH to grade the appropriateness of these guidelines. Therefore, these results should be interpreted with some caution.
MANAGEMENT of MISCARRIAGE

Criterion

15. When clinically appropriate, women with confirmed missed or incomplete miscarriage should be offered a choice of surgical, medical and expectant management options. (Grade A)

Rationale

• Expectant management is successful in 78% of patients with incomplete miscarriage and 50-60% of silent miscarriages and from controlled trials does not appear to result in an increase in morbidity.
• Medical management avoids surgery with a success rate reported in the majority of studies of between 80-96% of patients with miscarriage (incomplete and silent).
• Surgery is a highly effective method of uterine evacuation and can be completed as a day case procedure.

Guideline Documents

Gynaecological units should be made aware of the potential benefits of expectant and medical management of miscarriage. Such methods should be considered for all suitable patients.6

Medical and expectant methods are also effective in the management of confirmed miscarriage.5

Method of assessment

Case note review

• Proportion of women with incomplete and silent miscarriage/early fetal demise undergoing each treatment modality.
• Proportion of women undergoing medical treatment.

Patient survey

• Proportion of women being offered each form of treatment (pooled data from all services).
Results

Figure 9  Primary treatment of incomplete/silent miscarriage (including early fetal demise) as documented in the case notes

Figure 10  Medical treatment of incomplete/silent miscarriage (including early fetal demise) as documented in the case notes
Comment
Surgical evacuation remains the primary treatment for miscarriage within the services. Overall, primary treatment by surgery occurred in 67.9% of patients with incomplete and silent miscarriages. Expectant management was used in 22% of patients. There would appear to be low usage of medical treatment within the services. Overall, primary treatment by the medical route occurred in only 9.3% of patients. One third of services (numbers 4,7,10,13 and 15) did not use medical treatment in any patient and in only three services (numbers 1,6, and 14) did the percentage of women treated by medical management exceed 20%.

From the patient survey, it would appear that only 31% of patients with miscarriage that required treatment were offered the option of all three modalities and 34% of patients would appear to have been offered no choice in treatment.
Criterion

16. Protocols or algorithms should be present for each pathway of care. (Grade C)

Rationale

- Protocols aid staff in decision making, particularly when new and unfamiliar treatments are introduced.

Guideline documents

Early pregnancy units should establish criteria for the expectant, medical and surgical management of miscarriage. These should incorporate such factors as biochemical tests, ultrasound, previous reproductive history and patient preference.

Method of assessment

SPCERH was unable reliably to assess this audit criterion with the audit tools used.
Criterion

17. Surgical uterine evacuation for miscarriage should be performed using suction curettage. (Grade A)

Rationale

• In randomised controlled trials suction curettage is associated with statistically decreased blood loss, less pain and shorter duration of treatment than sharp curettage.

Guideline documents

Surgical uterine evacuation for miscarriage should be performed using suction curettage.  

Method of assessment

Case note review

• Proportion of surgical ERPoC with documented evidence of suction curettage.

Results

Figure 12 Documented use of suction curettage (case note review)

Comment

Overall, 90% (95% CI 86.5% to 92.3%) of case records had documentation supporting the use of suction curettage. The median service was number 8 with 95.7% compliance. High levels of suction curettage (>75%) were found in 14 services. Caution is advised with the interpretation of the reported low use of suction curettage within service 1. Possible explanations for this include an actual low use of suction curettage within this service. However, an alternative explanation is that this service is using suction curettage for ERPoC but that documentation within the case records by the surgeon is poor.
Criterion

18. All women less than 25 years old presenting to early pregnancy services should be tested for *Chlamydia trachomatis*. (Grade B)

Rationale

- *Chlamydia trachomatis* prevalence rates of between 2 to 25% are reported in women, with less than 25 years old at particular risk.
- Up to 70% of genital *Chlamydia trachomatis* infections are asymptomatic in women.
- Short term and long term morbidity is reported with infection with *Chlamydia trachomatis*.
- Identification of women with lower genital tract infection allows appropriate treatment to be commenced.

Guideline Documents

Opportunistic testing could be considered in the following groups of women: Women younger than 25 years and sexually active.\(^{11}\)

Method of assessment

*Case note review:*

- Percentage of women less than 25 years old with miscarriage (any type) with documented evidence of *Chlamydia trachomatis* testing.

Results

**Figure 13** Chlamydia testing in women less than 25 years with miscarriage (case note review)

![Chlamydia testing graph]

**Comment**

Low levels of testing are seen within most services. The overall percentage compliance was 20% (95% CI 15% to 26%) with the median percentage compliance at 11% (services 6, 8 and 12). Only 3 services achieved levels above 50% (numbers 1, 7 and 15). From the site visits it can be noted that only two services had a local guideline for *Chlamydia* testing within the EPAU (services 1 and 15).
MANAGEMENT of ECTOPIC PREGNANCY

Criterion

19. Traditional laparotomy should be performed in any patient with hypovolaemic shock of Class 2 severity or greater (ATLS classification). (Grade A)

Rationale

- Hypovolaemic shock represents rupture of an ectopic pregnancy.
- Primary resuscitation of exsanguinating rupture involves surgery.
- Laparotomy is rapid and allows adequate exposure of the operative field.

Guideline Documents

In cases of patients with haemorrhagic shock or where a surgeon has inadequate experience of operative laparoscopy, traditional rapid laparotomy is to be preferred.12

Method of assessment

Case note review

- Proportion of shocked ectopic pregnancies managed by immediate transfer to theatre and laparotomy.

Results

Sixteen women were coded as “shocked” by the local audit assistants. Twelve were managed appropriately with immediate transfer to theatre and laparotomy. The remaining four were coded as having a laparoscopy for diagnostic purposes before definitive treatment. The SPCERH team attempted to contact the local audit assistant to review the case records together. For one case we were unable to contact the local audit assistant prior to publication of this report. Therefore, three cases were reviewed and it was decided that two of these had been miscoded and were not clinically shocked at presentation. The clinical history of one case record is described:

A 34 year old Para 1+0 was admitted as an emergency via the general practitioner to the gynaecology ward at 3.25am. On arrival she complained of vaginal bleeding and severe abdominal pain and had a positive urinary pregnancy test. The clerking notes state that she was pale, cold and peripherally shut down with marked abdominal guarding. Her pulse was recorded as 70 beats per minute and BP 100/60 mmHg. Transvaginal scan was performed which noted a large haemoperitoneum and marked cervical excitation. She was transferred to theatre by 3.55am and a diagnosis of ruptured tubal ectopic pregnancy was made. She was treated by laparoscopic partial salpingectomy by the consultant gynaecologist. At operation, 1000ml of blood was found in the pelvis, and she required two units of blood during the procedure. Her post-operative haemoglobin was 9.7 g/dl. She made a satisfactory post-operative recovery.

If the case that SPCERH was unable to review was also clinically shocked (the worse case scenario) then this would represent 14% of clinically shocked ectopic pregnancies managed laparoscopically.

Comment

Although the woman illustrated in the results came to no harm and had a good outcome she had many clinical symptoms and signs of a ruptured ectopic pregnancy. In this case, delay caused by performing ultrasound scans and laparoscopy did not result in the woman’s condition deteriorating. However, it should be noted that young women can maintain a “normal” pulse and blood pressure until significant blood loss has occurred and then suddenly deteriorate.
Criterion

20. Traditional laparotomy should be performed if a surgeon has inadequate experience of operative laparoscopy. (Grade A)

Rationale

• Laparoscopic surgery is technically difficult and requires adequate training to prevent mishap.

Guideline Documents

In cases of patients with haemorrhagic shock or where a surgeon has inadequate experience of operative laparoscopy, traditional rapid laparotomy is to be preferred.\(^\text{12}\)

Method of assessment

SPCERH was unable to assess this audit criterion with the audit tools used.
Criterion

21. The Video Laparoscopic approach is the preferred method of treating haemodynamically stable patients. (Grade A)

Rationale

• Video laparoscopic treatment is preferred because patients return to health more quickly.

Guideline Documents

Laparoscopy, as opposed to laparotomy, should be the treatment of choice for the management of ectopic pregnancy. ⁶

A laparoscopic approach is superior to a laparotomy in terms of recovery from surgery, subsequent rate of intra-uterine pregnancy and recurrent ectopic but is associated with a higher risk of persisting trophoblastic tissue in the treatment episode. ¹²

Method of assessment

Case note review

• Proportion of cases managed surgically compared to proportions managed medically.
• Proportion of haemodynamically stable patients with a fallopian ectopic pregnancy and healthy contra-lateral fallopian tube managed laparoscopically.

Results

Figure 14  Method of primary treatment for ectopic pregnancies (case note review)
Comment
The primary treatment of ectopic pregnancy remains surgery which is in accordance with the RCOG green top guideline. Six services used methotrexate to treat some of their women. Relative high use of methotrexate was found in service 10 (43% of all records reviewed) and service 12 (25% of all records reviewed).

Wide variations in practice were noted in the use of laparoscopy for the treatment of haemodynamically stable ectopic pregnancies. The overall percentage treated laparoscopically was 58% (95% CI from 50% to 62%) and the median service was number 12 with 73% compliance. However, five services operated on less than 20% of the ectopic pregnancies by laparoscopy.
22. Salpingectomy (not salpingotomy) is the preferred surgical operation for women with a healthy contra-lateral tube. (Grade B)

Rationale
- Salpingectomy reduces the incidence of subsequent repeat ectopic pregnancy in women with healthy contra-lateral tubes.

Guideline Documents
Salpingectomy is to be preferred to salpingotomy when the contra-lateral tube is healthy.\textsuperscript{12}

Method of assessment
Case note review
- Proportion of haemodynamically stable patients with a fallopian ectopic pregnancy and healthy contra-lateral fallopian tube managed by salpingectomy.

Results

Figure 16 Percentage of salpingectomies performed in women with no previous ectopic pregnancy (case note review)

Comment
High levels of compliance with the recommendation were found in all services. Overall, 91% of these patients were treated by salpingectomy (95% CI 87 to 94%) with the median service (number 15) achieving 90% compliance.
Criterion

23. If the contra-lateral tube is absent, then salpingotomy can be considered after counselling about the risk of subsequent recurrent ectopic pregnancy. (Grade B)

Rationale

- Salpingectomy in women with an absent contra-lateral tube would require assisted conception techniques for any future pregnancies.
- Salpingotomy allows spontaneous conception although there is a significant risk (20%) of ectopic pregnancy.

Guideline Documents

Salpingotomy is reasonable when there is only one tube but is associated with a 20% rate of further ectopic. Whenever possible, patients should be counselled about this.¹²

Method of assessment

Case note review
- Management of fallopian ectopic pregnancies where the contra-lateral tube is absent.

Results

Figure 17 Treatment of ectopic pregnancy in women with absent contra-lateral tubes (n=17) (case note review)

- Milk the tube: 5.9%
- Salpingotomy: 17.6%
- Salpingectomy: 76.5%

Comments

Results are pooled for analysis. Within 324 case records only 17 had documentary evidence at operation of absent contra-lateral tube. Salpingectomy was performed in 13 patients as treatment for the ectopic pregnancy. Little use of salpingotomy was made, possibly reflecting awareness that there is a significant risk of repeat ectopic pregnancy with this procedure.
PREVENTION OF RHESUS SENSITISATION

Criteria

24. All non-sensitised rhesus (Rh) negative women with an ectopic pregnancy should receive anti-D immunoglobulin.

25. All non-sensitised rhesus (Rh) negative women with a miscarriage over 12 weeks (including threatened miscarriage) should receive anti-D immunoglobulin.

26. All non-sensitised rhesus (Rh) negative women suffering from miscarriage where the uterus is evacuated should receive anti-D immunoglobulin.

27. All non-sensitised rhesus (Rh) negative women with a threatened miscarriage under 12 weeks when the bleeding is heavy or associated with pain should receive anti-D immunoglobulin.

28. For successful immunoprophylaxis, anti-D immunoglobulin should be given ASAP after sensitising event but always within 72 hours.

(Grade B)

Rationale

• Prevention of rhesus sensitisation.

Guideline Documents

The RCOG published its guidance document on prevention of rhesus sensitisation and administration of anti-D immunoglobulin.\(^{13}\)

Method of assessment

Case note review:

• The proportion of case records of eligible rhesus negative women that had no documentary evidence within the notes of receiving anti-D immunisation.

• The proportion of women receiving anti-D within 72 hours of intervention/diagnosis.

Pooled data is presented, as numbers were small in each O&G service.

Results

Ectopic pregnancy

48 patients with ectopic pregnancy were rhesus negative. Data was available for 47 patients. There was no documentary evidence of anti-D administration in five records (10.6%, 95% CI 4.6% to 22.6%).

Miscarriages more than 12 weeks

Only 16 patients were rhesus negative and greater than 12 weeks gestation. No record of anti-D administration was found in 6 case records (37.5%, 95% CI 18.5% to 61.4%).

Surgical ERPoC

Eighty-five women were rhesus negative and underwent surgical ERPoC. For five case records (5.9%, 95% CI 2.5% to 13%) no record of anti-D administration was found.

Recurrent bleeding with threatened miscarriage < 12 weeks

No results are available because the case note review excluded threatened miscarriage from its inclusion criteria and so was not assessed within this audit.
Timing of Anti-D Administration

Figure 18  Percentage of Rhesus negative women receiving Anti-D immunoglobulin within 72 hours

<table>
<thead>
<tr>
<th>O&amp;G service</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>100%</td>
</tr>
<tr>
<td>2</td>
<td>90%</td>
</tr>
<tr>
<td>3</td>
<td>80%</td>
</tr>
<tr>
<td>4</td>
<td>70%</td>
</tr>
<tr>
<td>5</td>
<td>60%</td>
</tr>
<tr>
<td>6</td>
<td>50%</td>
</tr>
<tr>
<td>7</td>
<td>40%</td>
</tr>
<tr>
<td>8</td>
<td>30%</td>
</tr>
<tr>
<td>9</td>
<td>20%</td>
</tr>
<tr>
<td>10</td>
<td>10%</td>
</tr>
<tr>
<td>11</td>
<td>0%</td>
</tr>
<tr>
<td>12</td>
<td>10%</td>
</tr>
<tr>
<td>13</td>
<td>20%</td>
</tr>
<tr>
<td>14</td>
<td>30%</td>
</tr>
<tr>
<td>15</td>
<td>40%</td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
</tr>
</tbody>
</table>

Comment

Significant numbers of the case records of eligible women for anti-D administration appear to have no documentation of administration. Two explanations could account for the lack of documentation of anti-D administration. The first assumes that the anti-D was given and that documentation of this was poor. Alternatively, it could represent a genuine system failure that anti-D was never given.

High compliance with administration of anti-D within 72 hours was found with twelve services achieving 100%. The overall percentage compliance was 96% (95% CI 92% to 98%).
HISTOLOGY

Criterion

29. Tissue obtained at the time of miscarriage should be examined histologically to confirm pregnancy and to exclude ectopic pregnancy or gestational trophoblastic disease. (Grade C)

Rationale

- Histological examination is required to exclude gestational trophoblastic disease and ectopic pregnancy.
- Absence of chorionic villi suggests there may be an extra-uterine pregnancy.

Guideline Documents

Tissue obtained at the time of miscarriage should be examined histologically to confirm pregnancy and to exclude ectopic pregnancy or gestational trophoblastic disease.6

Following the surgical management of patients with incomplete miscarriage, wherever possible specimens or material should be routinely presented for histopathological examination for confirmation of pregnancy, exclusion of ectopic pregnancy and exclusion of trophoblastic disease.6

Method of assessment

Case note review

- Proportion of case records of miscarrying women requiring surgical or medical management that contained documentary evidence (laboratory report or written documentation of sending) of products of conception sent for histological examination.
Results

Figure 19 Percentage of case records with evidence of histology sent: ERPoC or medical treatment

Comment
Marked differences were found between services in the proportion of case records containing documentary evidence of products of conception sent for histological examination. Overall 71.1% of records had documentary evidence (95% CI 66.8% to 75%). The median service was number 14 with 82.9% records containing evidence of products of conception being sent for examination.
**Criterion**

30. Products of conception should be disposed of in a sensitive and dignified way with the wishes of the parents taken into consideration. (Grade C)

**Rationale**
- The public is increasingly concerned with reports of “insensitive” disposal of human tissue.

**Guideline Documents**
All previable fetuses should be disposed of in a dignified, respectful way, regardless of gestational age or the way in which the loss has occurred.  

**Method of Assessment**

**Case note review**
- Documented evidence of discussion of disposal of products of conception within the case records.

**Patient survey**
Within the patient survey patients answered 3 questions:
- Were you informed of what happens to any pregnancy tissue?
- Were you involved with decisions about what happens?
- Did staff seek your consent (verbal or written) about what happens to the pregnancy tissue?

Results presented as proportion of women who underwent surgical ERPoC or medical management for miscarriage reporting being informed, involved and from whom consent was obtained for disposal of products of conception.

One service (number 1) had a disproportionate number of replies that were favourable and consequently pooled results are presented twice. The first results include this service while the second results have service 1 excluded.
Results

Figure 20 Documented discussion of disposal of pregnancy tissue

Figure 21 Percentage favourable replies to questions concerning informing, involvement and obtaining consent for disposal of pregnancy tissue

*O&G service 1 excluded
Comment

There was poor documentation in most services of discussion about appropriate disposal of products of conception suggesting that this topic is seldom discussed with patients. Overall only 29% of case records contained documentation (95% CI 25 to 34%) with the median service reporting 14% compliance (service 11).

Women who reported that no tissue was obtained were excluded from the patient questionnaire analysis.

For the "informed" question 120 replies were analysed (including 37 from service 1). Overall 55% of patients were informed although this dropped to only 35% when service 1 was excluded.

For the "involved" question 116 replies were analysed with 47% of patients being involved with decision making. However, this fell to only 22.8% of 79 replies when service 1 was excluded.

For “consent”, 51% of 114 replies were affirmative. Once again, exclusion of service 1 from analysis led to only 27% of patients reporting that consent had been obtained.
FOLLOW UP & PSYCHOLOGICAL ASPECTS OF
EARLY PREGNANCY LOSS

Criterion

31. Health care professionals should be sensitive to the emotional and psychological needs of couples experiencing early pregnancy loss and should be able to access formal counselling when necessary. (Grade C)

Rationale

• Women and their partners may experience a range of psychological disturbance following EPL.

Guideline Documents

Health care professionals should be sensitive to the emotional and psychological needs of couples experiencing early pregnancy loss.4

All professionals should be aware of the psychological sequelae associated with miscarriage and should provide support and follow up, as well as access to formal counselling when necessary.5

Method of assessment

Patient survey

Proportion of patients answering favourably to seven questions:

• When you had important questions to ask a health professional, did you get answers that you could understand?
• If you had anxieties or fears about your condition or treatment, did a health professional discuss them with you?
• Were you given enough privacy when discussing your condition or treatment?
• Were you given enough privacy when being examined or treated?
• Overall, how would you rate the level of emotional support provided by the staff?
• Overall, did you feel you were treated with respect and dignity while you were in the hospital?
• Overall, how would you rate the care you received?

Pooled results are presented from all replies received.
Results

Figure 22 Percentage replies to the question “When you had important questions to ask a health professional, did you get answers that you could understand?”

Figure 23 Percentage replies to the question “If you had any anxieties or fears about your condition or treatment, did a health professional discuss them with you?”
Figure 24 Percentage replies to the question “Were you given enough privacy when discussing your condition or treatment?”

Figure 25 Percentage replies to the question “Were you given enough privacy when being examined or treated?”
Figure 26 Percentage replies to the question “Overall, how would you rate the level of emotional support provided by staff?”

Figure 27 Percentage replies to the question “Overall, did you feel you were treated with respect and dignity while you were in the hospital?”
Figure 28 Percentage replies to the question “Overall, how would you rate the care you received?”

Comment
SPCERH did not collect data on the ability of each service to access formal counselling. Consequently, this audit criterion is only partially addressed. However, the answers to these seven questions by patients demonstrate very high levels of satisfaction with the emotional and psychological support provided to women with EPL and threatened miscarriage within the 15 O&G services.
Criteria

32. Women with early pregnancy loss should be offered the opportunity to attend for follow up with a health care professional.

33. The optimum time for follow up is two weeks.

(Grade C)

Rationale

• Follow up at two weeks allows discussion and clarification of issues around the couple’s recent EPL, pre-pregnancy or contraceptive advice, and diagnosis of ongoing physical or psychological complications from the EPL.

Guideline Documents

Appropriate follow up should be offered to all women having miscarriage. The optimum time for follow-up is around two weeks.6

Method of assessment

Case note review

• Proportion of case records (miscarriages and ectopic pregnancies) containing documentation of (either primary or secondary care) follow up.
• Pattern of suggested follow up intervals from the case records.

Pooled results for the suggested time for follow up are presented because numbers were small for each service.

Patient survey

• Main follow up offered to each woman with a non-viable pregnancy.

Pooled results for the type of follow up are presented because numbers were small for each service.
Results

Figure 29 Documented follow up arrangements in case note review

Table 8 Suggested interval to follow up (weeks) as documented in the case records (miscarriage and ectopic pregnancy case records)

<table>
<thead>
<tr>
<th>Interval</th>
<th>Number of case records</th>
<th>Percentage of all case records</th>
</tr>
</thead>
<tbody>
<tr>
<td>none suggested</td>
<td>225</td>
<td>17.9</td>
</tr>
<tr>
<td>1</td>
<td>105</td>
<td>8.3</td>
</tr>
<tr>
<td>2</td>
<td>37</td>
<td>2.9</td>
</tr>
<tr>
<td>3</td>
<td>2</td>
<td>.2</td>
</tr>
<tr>
<td>4</td>
<td>23</td>
<td>1.8</td>
</tr>
<tr>
<td>5</td>
<td>4</td>
<td>.3</td>
</tr>
<tr>
<td>6</td>
<td>125</td>
<td>9.9</td>
</tr>
<tr>
<td>7</td>
<td>8</td>
<td>.6</td>
</tr>
<tr>
<td>8</td>
<td>17</td>
<td>1.4</td>
</tr>
<tr>
<td>10</td>
<td>3</td>
<td>.2</td>
</tr>
<tr>
<td>12</td>
<td>5</td>
<td>.4</td>
</tr>
</tbody>
</table>
Comment
Within both case note review and patient survey significant numbers of patients do not seem to be offered a follow up appointment by the O&G service.

Overall, only 329 case records (26.2%, 95% CI 23.8% to 28.7%) contained a suggestion for when the patient should be reviewed. Very few appointments are made within the two-week framework that has been suggested by the RCOG.
Criterion

34. A discharge summary of the patient's care including follow up arrangements should be available to her General Practitioner within 48 hours. (Good practice point)

Rationale

• General practitioners need to be kept informed with timely information in case of a deterioration in physical or mental health caused by the early pregnancy loss.

Guidance documents

No relevant information.

Method of assessment

Site visits

• Method of delivery of discharge information to the primary care physician.

Results

Table 9 The number of hospitals using various methods of discharge summary from hospital care to primary care and different methods of delivery.

<table>
<thead>
<tr>
<th>Method of Discharge</th>
<th>Post</th>
<th>Patient</th>
<th>Combination</th>
<th>Fax</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Handwritten letter</td>
<td>5</td>
<td>4</td>
<td>2</td>
<td>1</td>
<td>12</td>
</tr>
<tr>
<td>Computer generated letter</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
<td>5</td>
</tr>
<tr>
<td>Dictated letter</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Combination (dependent on diagnosis)</td>
<td></td>
<td>1</td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>11</td>
<td>4</td>
<td>3</td>
<td>1</td>
<td>19</td>
</tr>
</tbody>
</table>

Comment

SPCERH was unable to audit whether discharge summaries were reaching General Practitioners within 48 hours of discharge from the O&G service. However, it would seem unlikely that letters from the EPAU would reach the GP within 48 hours if sent by post or by the patient being given a copy to deliver. Within delivery method, “combination” refers to a combination of post and patient being used to deliver a discharge summary to the general practitioner. Only one service (number 11) appears to use technology (a fax machine) that would allow efficient transfer of information from secondary to primary care.
Criterion

35. All couples experiencing early pregnancy loss (inc. ectopic pregnancies) should be given a contact and telephone number of a local and/or national support group. (Grade C)

Rationale

- Patient centred support agencies provide on-going support.

Guideline Documents

All couples experiencing early pregnancy loss should be given a contact and telephone number of a local support group.

Method of assessment

Case note review

- Proportion of records with documentary evidence of contact number or information being given to the patient about support groups.

Patient survey

- Percentage of patients reporting being given contact number of a support group (Viable pregnancies excluded).

Results

Figure 31 Documented contact number of support group (case note review-miscarriages)
Comment

Low documentation within the case records of support group information being given probably reflects poor documentation because women within the patient survey reported much higher percentages of being given this information. Overall compliance for the miscarriage CNR was 64% (95% CI 61% to 67%) and the median service was number 1 at 69%.

Analysis of the ectopic pregnancy CNR showed only 24% of women being given a contact number of a support group (95% CI 20% to 29%) with the median service being number 8 (12.5%).

However, the results from the patient questionnaire reveal that overall 81% of women received information (95% CI 76% to 85%) and a median score of 86% by services 6,8,13,14, and 15.
Patient Survey: Analysis of free text comments

Within the patient survey three opportunities were given for patients to make handwritten comments. The two tables presented below represent the analysis of this text and an attempt to classify them into themes or headings. Table 10 represents generally positive remarks while Table 11 contains negative comments. For each theme one to three remarks have been reproduced as illustrative examples. In total 519 positive replies and 207 negative replies could be coded.

Table 10 Themes from positive free text comments

<table>
<thead>
<tr>
<th>Categories of Positive Free Text Comments</th>
<th>Number of Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>General favourable comments about staff (unspecified)</td>
<td>152</td>
</tr>
<tr>
<td><em>All staff very sympathetic and understanding.</em></td>
<td></td>
</tr>
<tr>
<td>General favourable comments about care provided by midwives/nurses or an individual midwife/nurs</td>
<td>119</td>
</tr>
<tr>
<td><em>Midwife dealing with my care was very friendly, helpful &amp; very professional. She made a very difficult situation that little bit easier.</em></td>
<td></td>
</tr>
<tr>
<td>General favourable comments about doctors or an individual doctor</td>
<td>18</td>
</tr>
<tr>
<td><em>Doctor I saw in the afternoon was v informative, reassuring &amp; caring.</em></td>
<td></td>
</tr>
<tr>
<td>The first doctor I saw who told me my pregnancy would not continue had wonderful compassion &amp; understanding.*</td>
<td></td>
</tr>
<tr>
<td>General favourable comments about ultrasound staff</td>
<td>4</td>
</tr>
<tr>
<td><em>The auxillaries at the EPAU were excellent, they were so caring &amp; made me feel most comfortable.</em></td>
<td></td>
</tr>
<tr>
<td>General favourable comments about speed and/or thoroughness of diagnosis/treatment/no waiting</td>
<td>34</td>
</tr>
<tr>
<td><em>Felt I was seen v quickly, as I was v upset &amp; scared this helped a great deal.</em></td>
<td></td>
</tr>
<tr>
<td>General favourable comments about information provision/explanation</td>
<td>33</td>
</tr>
<tr>
<td><em>All …… information given was excellent.</em></td>
<td></td>
</tr>
<tr>
<td><em>The doctor went into great detail with everything he explained.</em></td>
<td></td>
</tr>
<tr>
<td>General favourable comments about follow up/contact numbers</td>
<td>8</td>
</tr>
<tr>
<td><em>At no time was I made to feel silly or my concerns not important.Was offered to call the unit any time for advice or another scan.</em></td>
<td></td>
</tr>
<tr>
<td>General favourable comments about hospital facilities/privacy</td>
<td>27</td>
</tr>
<tr>
<td><em>Hospital gave plenty of privacy.</em></td>
<td></td>
</tr>
<tr>
<td><em>The hospital was clean, spacious, calming &amp; relaxing.</em></td>
<td></td>
</tr>
<tr>
<td><em>Being in a room by myself meant total privacy which was important during a difficult time.</em></td>
<td></td>
</tr>
<tr>
<td>General favourable comments about pain management</td>
<td>5</td>
</tr>
<tr>
<td><em>Pain control was excellent.</em></td>
<td></td>
</tr>
<tr>
<td>Positive comments about partner involvement</td>
<td>12</td>
</tr>
<tr>
<td><em>My partner was never pushed away, he was always included. Very good care by all.</em></td>
<td></td>
</tr>
<tr>
<td>Positive comments about offer of an ultrasound picture</td>
<td>3</td>
</tr>
<tr>
<td><em>Offered a photograph of the baby after the ultrasound which I declined but was good to have the option.</em></td>
<td></td>
</tr>
<tr>
<td>General favourable comments about care given</td>
<td>83</td>
</tr>
<tr>
<td><em>The care was very good and made me feel at ease.</em></td>
<td></td>
</tr>
<tr>
<td>Positive comments about continuity of care by staff</td>
<td>7</td>
</tr>
<tr>
<td><em>I was fortunate enough to have the same nurse on both visits to the EPAU…</em></td>
<td></td>
</tr>
<tr>
<td>Positive comment about range of treatment options</td>
<td>1</td>
</tr>
<tr>
<td><em>I think it is good there are choices and you are left to make your own decisions.</em></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>519</td>
</tr>
</tbody>
</table>
### Table 11 Themes from negative free text comments

<table>
<thead>
<tr>
<th>Negative comments about inability to access service at weekends or at night</th>
<th>12</th>
</tr>
</thead>
<tbody>
<tr>
<td>I feel there should be scans available at weekends. I was told on a Saturday I could not have a scan until Monday. I wanted to know there and then if I had lost my baby. I had to wait from Friday to Monday. Why can't the clinic be open through weekends or late evenings as it appears the demand is there. Lack of weekend scanning available causing me prolonged unnecessary stress &amp; pain as my progress could not be checked fully by internal examinations.</td>
<td></td>
</tr>
<tr>
<td>Negative comments about seeing pregnant women or photos during admission</td>
<td>28</td>
</tr>
<tr>
<td>No scanner in ward causing you to see other pregnant women &amp; babies, causing more unnecessary pain. (same patient) Waiting room had other women showing pictures of a newborn baby, very upsetting.</td>
<td></td>
</tr>
<tr>
<td>Negative comments about being seen in same ward as women terminating pregnancies</td>
<td>2</td>
</tr>
<tr>
<td>Found out afterwards that the ward I was in also took in women who were having abortions. They should not be in the same ward. I did not like being in the same ward as those having terminations.</td>
<td></td>
</tr>
<tr>
<td>Prolonged waiting times while in hospital</td>
<td>22</td>
</tr>
<tr>
<td>Time waiting for my appointment in waiting room. The long waiting time for the operation (12 hours).</td>
<td></td>
</tr>
<tr>
<td>Prolonged waiting time to get appointment to be seen</td>
<td>5</td>
</tr>
<tr>
<td>Did all contacting myself and wasn't seen at hospital until over 48 hours later by which time miscarriage had occurred at home</td>
<td></td>
</tr>
<tr>
<td>Inadequate pain relief</td>
<td>6</td>
</tr>
<tr>
<td>... Also feel strong painkillers should have been given earlier than they were.</td>
<td></td>
</tr>
<tr>
<td>Poor explanation/information about ultrasound scan (either content or process e.g. TVS)</td>
<td>8</td>
</tr>
<tr>
<td>...no information was given about vaginal scans. I had no knowledge of them and wanted to know more about its use etc. I didn't have that explained</td>
<td></td>
</tr>
<tr>
<td>General negative comments about staff</td>
<td>6</td>
</tr>
<tr>
<td>Was lying on bed before operation. Staff were talking about other staff whom they didn't like! ...people seemed very cheery as if I was in for a minor op rather than the tail end of a desperately wanted pregnancy.</td>
<td></td>
</tr>
<tr>
<td>General negative comments about nurses/midwives</td>
<td>9</td>
</tr>
<tr>
<td>Another midwife I saw was not very helpful at all. She was very cheeky &amp; sarcastic to me when asking her advice. She spoke down to me as if I was a stupid little girl. The first nurse could have been a bit friendlier, she did not make me feel relaxed at first.</td>
<td></td>
</tr>
<tr>
<td>General negative comments about professional performing ultrasound scan</td>
<td>9</td>
</tr>
<tr>
<td>First woman who scanned me was very cold and did not show any care towards me. Felt the attitude of the nurse who performed the scan was very uncaring.</td>
<td></td>
</tr>
<tr>
<td>General negative comments about doctors/ a particular doctor</td>
<td>13</td>
</tr>
<tr>
<td>Great care by midwives but doctor's care was rushed &amp; uncaring. One doctor not very sympathetic. I felt this brought the whole team down. I found the clinical appointment with the male consultant very matter of fact &amp; straight to the point and sometimes quite unsympathetic...</td>
<td></td>
</tr>
<tr>
<td>Negative comments about toilets/cleaning facilities</td>
<td>1</td>
</tr>
<tr>
<td>Toilet facilities for visitors not available on ward, only at main reception &amp; these were quite unclean.</td>
<td></td>
</tr>
<tr>
<td>Negative comments about speculum/internal examination</td>
<td>5</td>
</tr>
<tr>
<td>Speculum procedure very uncomfortable.</td>
<td></td>
</tr>
<tr>
<td>Concerns about hospital cleanliness</td>
<td>4</td>
</tr>
<tr>
<td>The domestics on the ward require updates on infection control eg washing bin, tables &amp; jugs with same cloth!</td>
<td></td>
</tr>
<tr>
<td>Inadequate information and/or choices for treatment</td>
<td>9</td>
</tr>
<tr>
<td>It was not explained that I would pass the actual fetus sac/baby whole. We were only told I would have pain &amp; bleeding &amp; was v upset when this happened.</td>
<td></td>
</tr>
<tr>
<td>Inadequate information about miscarriage (unspecific)</td>
<td>5</td>
</tr>
<tr>
<td>I wish I could be more informed on the possible causes of bleeding. The health professionals said they did not know the cause.</td>
<td></td>
</tr>
<tr>
<td>Lack of privacy/private room</td>
<td>13</td>
</tr>
<tr>
<td>Miscarriage/op in Dec 2002: waited in large ward before &amp; after procedure. V difficult hearing other women discussing/experiencing problems. ... more privacy after receiving news, was in general ward, cleaners hovering.... ...fell everyone could see my grief, inc public passing by. When...advised...that my pregnancy was...miscarrying I was left with my partner to take it in and have some privacy. Twice...one of the staff barged in the room and asked if we were ready to leave and made all efforts to get me out of the room</td>
<td></td>
</tr>
<tr>
<td>Concerns about histology/disposal of products of conception</td>
<td>3</td>
</tr>
<tr>
<td>I didn't know until after my D&amp;C that tissue would be 'disposed of'... It was a bit unkind to tell me afterward what happened to the remaining tissue not sent to the lab.</td>
<td></td>
</tr>
<tr>
<td>Disagreement between health professionals about appropriate diagnosis or treatment</td>
<td>2</td>
</tr>
<tr>
<td>Dr seemed uneasy, disagreed with nurse over surgery/wait &amp; see option, didn't make situation easier.</td>
<td></td>
</tr>
<tr>
<td>Administrative problems (case records not available)</td>
<td>4</td>
</tr>
<tr>
<td>Although I had made an appointment with consultant my records were not available when I arrived. We had to wait ...until the secretary came back from lunch...</td>
<td></td>
</tr>
<tr>
<td>Poor post-operative care</td>
<td>1</td>
</tr>
<tr>
<td>After having the operation there were no nurses checking to see how I was. When buzzing for someone... it was always an auxiliary</td>
<td></td>
</tr>
<tr>
<td>Negative comments about anaesthetic staff</td>
<td>1</td>
</tr>
<tr>
<td>Anaesthetist v rude to staff in theatre reception saying she didn't know who I was or what I was in for... ...shouted at the nurse from Ward 41 when no beds available.</td>
<td></td>
</tr>
</tbody>
</table>
Table 11 Themes from negative free text comments (continued)

<table>
<thead>
<tr>
<th>Theme</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lack of continuity of care</td>
<td>2</td>
</tr>
<tr>
<td>... did not see same doctor twice, though it is understandable with shifts etc.</td>
<td></td>
</tr>
<tr>
<td>Receiving antenatal clinic/booking scan appointments after miscarriage</td>
<td>4</td>
</tr>
<tr>
<td>Booking-in appointment not cancelled so community midwife turned up on doorstep &amp; I had to explain. Doctor also did not know &amp; I had to explain, this should not happen.</td>
<td></td>
</tr>
<tr>
<td>A couple of months after my miscarriage I received a letter from the hospital advising they were not carrying out deliveries &amp; I should contact another hospital for the birth. Miscarriage on 3rd Feb. Received letter dated 8th Feb inviting me for my 12 week scan on 12th Feb.</td>
<td></td>
</tr>
<tr>
<td>V upsetting &amp; unnecessary - surely could have been avoided?</td>
<td></td>
</tr>
<tr>
<td>Poor sign-posting/difficulty finding the EPAU within the hospital/reception desk not manned</td>
<td>6</td>
</tr>
<tr>
<td>The unit wasn’t v clearly signposted.</td>
<td></td>
</tr>
<tr>
<td>Inappropriate branding of commercial companies on information leaflets</td>
<td>1</td>
</tr>
<tr>
<td>... branding too overt everywhere....... this is not the place for advertising, especially not on the leaflets.</td>
<td></td>
</tr>
<tr>
<td>Staff not reading case records prior to seeing patient</td>
<td>1</td>
</tr>
<tr>
<td>..... Different staff don’t seem to check the notes so had to explain my story each time - distressing.</td>
<td></td>
</tr>
<tr>
<td>No formal appointment system</td>
<td>1</td>
</tr>
<tr>
<td>No appointment system..... No obvious system for who would be seen first.</td>
<td></td>
</tr>
<tr>
<td>General negative comments about A&amp;E care</td>
<td>1</td>
</tr>
<tr>
<td>I was sent to A&amp;E because of heavy bleeding...I was made to feel as though I was wasting time when I was...in a lot of pain and v concerned.</td>
<td></td>
</tr>
<tr>
<td>Criticism of a technical part of care</td>
<td>8</td>
</tr>
<tr>
<td>Did not have my BP checked although GP had commented it was high.</td>
<td></td>
</tr>
<tr>
<td>Lack of emotional support/being left alone/no counsellor</td>
<td>8</td>
</tr>
<tr>
<td>Left alone for long periods (2 hours) &amp; felt v isolated. Other women's grief clearly audible through walls. I found this extremely distressing. Lone nights whilst losing with no one to talk to - basically lack of emotional support whilst miscarrying. I was upset &amp; worried. No one did anything to allay my fears, I was just another pregnant patient. 1 in 3 ends in abortion I was told.</td>
<td></td>
</tr>
<tr>
<td>Concern about aftercare/no follow up</td>
<td>6</td>
</tr>
<tr>
<td>I was told that I would be contacted the week after which never happened... This was v hurtful after what I had been through.</td>
<td></td>
</tr>
<tr>
<td>Negative comments about staff not acknowledging loss of a baby</td>
<td>1</td>
</tr>
<tr>
<td>Although seen by EPU staff, I was treated in a general gynae ward No mention was made of the fact I had just 'lost' a baby - good in some ways, bad in others.</td>
<td></td>
</tr>
<tr>
<td>Concerns about patient confidentiality not being observed</td>
<td>3</td>
</tr>
<tr>
<td>We were stuck in a room (doorway) with ... a list of patients names and babies chromosomal anomalies (deaths included) on a table clearly visible</td>
<td></td>
</tr>
<tr>
<td>I was asked my name &amp; reason for being there by an auxiliary nurse within sight and hearing of other patients</td>
<td></td>
</tr>
<tr>
<td>Negative comments about food/meals</td>
<td>3</td>
</tr>
<tr>
<td>I was not allowed to leave .. after my op until I had eaten... My mouth was v dry, stomach was sore and all I was given was 2 day old stale ham sandwiches-not pleasant! Food is terrible - I now bring my own!</td>
<td></td>
</tr>
<tr>
<td>Partner excluded</td>
<td>3</td>
</tr>
<tr>
<td>My husband was not really taken into consideration much, the staff spoke to me as the patient. My partner was informed that he could not visit until after 2.00pm (after the operation).... ...I feel due to circumstances of loss it is important to have support.</td>
<td></td>
</tr>
<tr>
<td>Delayed results of tests being given to patient</td>
<td>3</td>
</tr>
<tr>
<td>Had a urine sample taken as I felt I had an infection. This took a week to come back &amp; was positive, a delay I could have done without. Would like to know results of swabs &amp; blood samples taken but don't know how to get these - not mentioned at all. I was told that the POC would be examined &amp; I would be contacted with the findings. 5 months have passed &amp; I have heard nothing.</td>
<td></td>
</tr>
<tr>
<td>Difficulty accessing service through primary care</td>
<td>2</td>
</tr>
<tr>
<td>Contacted my GP at 8.00am and never heard anything back from him for advice/next steps...did all contacting myself Getting the first scan appointment through my GP took longer than I would have liked.</td>
<td></td>
</tr>
<tr>
<td>Inappropriate music during admission within the EPAU</td>
<td>1</td>
</tr>
<tr>
<td>... during the procedure music was played. Eric Clapton's song that he wrote after his son Connor died played....this track was far from helpful</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>207</td>
</tr>
</tbody>
</table>

**Comment**

Positive comments were far greater than negatives. However, particular strong negative themes included:

- Difficulty of not having an EPL service that runs over the weekend
- Contact with heavily pregnant women, babies and baby pictures.
- Prolonged waiting whilst in hospital (particularly for treatment)
- Lack of privacy to grieve whilst in hospital
3 Recommendations for Early Pregnancy Assessment Services in Scotland

The following recommendations are based on this audit’s findings and take into account the views of the steering group that met on 7th May 2003 and reviewed the findings.

1. O&G services should provide an EPAU located within a dedicated area avoiding contact with maternity patients and staffed by a dedicated team. Initial assessment, investigation, peri-operative management/care and follow up should be available within the EPAU.

2. O&G services should explore the feasibility of providing EPAU services over the weekend, perhaps by utilising regional planning and managed clinical networks.

3. A lead clinician in each service should maintain a record of staff adequately trained to undertake early pregnancy ultrasound. As a minimum the record should be formally reviewed six monthly. New employees should be assessed by the lead clinician prior to inclusion in the register. Usually inclusion in the register would require past attendance at a recognised training course.

4. O&G services should explore the feasibility of improving patient choice by introducing medical management for miscarriage.

5. Each service should develop a local written policy on Chlamydia testing for EPL patients. As a minimum all women < 25 years old undergoing surgical ERPOC should be offered testing. Ideally, all women < 25 years old, and others at risk of Chlamydia trachomatis infection (as defined by SIGN guideline 42), presenting to the service should be offered testing.

6. Primary treatment of women with suspected ectopic pregnancy who are clinically shocked is immediate laparotomy.

7. O&G services should ensure that women have access to laparoscopic treatment for ectopic pregnancy by providing an adequate number of trained consultants and appropriate surgical transfer arrangements.

8. Use of a structured case record "rhesus stamp" in the case records would serve as a form of patient-specific reminder. This stamp should summarise situations where anti-D is needed and provide space to record rhesus status, and dose, time and date of anti-D administration.

9. Histological examination is recommended to help exclude diagnoses of trophoblastic disease or ectopic pregnancy.

10. Services should explore alternative methods (Fax/Email) of information transfer to General Practitioners.
4 References


