Intra-uterine contraception in general practice

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SUMMARY. The experience of two general practitioners with 1,041 women attending clinics for intra-uterine contraception is analysed retrospectively. Patients were mainly Health Service patients of the doctors, but some were referred by other general practitioners, by the local authority, and a consultant. Some patients travelled considerable distances. Age varied from 15 to 52 and parity from 0 to 11. The fitting of various devices was usually easy, but patients often complained of symptoms, mostly bleeding, pain, or discharge, the majority of which were amenable to treatment and often were not due to the intra-uterine contraceptive device itself. There was evidence of lowered haemoglobin levels in women using this method for some years.

The retrospective analysis shows follow up, always difficult in contraceptive clinics, to be less than desirable. In planning contraceptive programmes more attention should be given to this subject. Pregnancy occurred in 51 cases and there were four cases of cancer of which one died. There was a further unrelated death from subarachnoid haemorrhage.

Introduction

Intra-uterine contraception is now widely accepted in general practice (Hull, 1969; Orr and Terry, 1971; Webster, 1971; Bull, 1973; Barnard-Jones, 1973; Barley, 1973). The technique of fitting has been well described and is easily adapted to well-equipped general practice (Frampton, 1967; Peel and Potts, 1969; Hawkins, 1970).

However, Cartwright and Waite (1972) showed that a majority of doctors feel moderate or considerable anxiety about associated health hazards. This paper describes the experience of two general practitioners in different practices with 1,041 women attending clinics for intra-uterine contraceptive devices (IUCDs) between November 1965 and December 1972. We hope that this experience will allay some fears and illustrate some problems regarding the method of contraception.

Aims

Our aims were:

(1) To analyse the characteristics of the patients in whom we fitted IUCDs.

(2) To record the time of fitting, ease of fitting, and the frequency of follow-up.

(3) To record the symptoms the patients reported and significant medical events such as pregnancy, anaemia, cancer, and vaginal discharge which occurred in the patients with devices.

(4) To help other general practitioners who are preparing to fit IUCDs in their practices.

The patients

As the data were analysed retrospectively they show much incompleteness. Some experience with the first 200 patients has already been reported (Hull, 1969).

Source

Table 1 shows how our patients came to us. For one of us (F.M.H.) there was a rapid increase because patients were having difficulty in finding doctors to fit IUCDs. After 1969 more doctors were fitting these devices and so there were fewer referrals from outside the practice.

TABLE 1
INTRA-UTERINE DEVICES FITTED BY TWO GENERAL PRACTITIONERS BETWEEN 1965–1972

Year of fitting	*F.M.H.*	*J.M.H.*	*Total*
1965	2	0	2
1966	48	0	48
1967	123	14	137
1968	122	56	178
1969	130	66	196
1970	87	74	161
1971	79	79	158
1972	63	98	161
Total	654	387	1,041

Table 2 shows that patients were drawn mostly from National Health Service lists of the practitioners concerned though nearly a quarter came as referrals from other general practitioners. A small number were treated under the County Council Family Planning Scheme because of social indications and two cases were referred by a consultant gynaecologist. Since the majority were National Health Service patients, most travelled less than ten miles; 100 travelled between ten and 30 miles and one travelled over 100 miles. The distance travelled to get an IUCD reflects the difficulty of access to general practitioners prepared to offer this service—a situation now much improved.

TABLE 2
SOURCE OF PATIENTS

	N.H.S.	*%*	*Private*	*%*	*County council*	*%*	*Consultant*	*%*	*Total*	*%*
Doctor—J.M.H.	262	*67·7*	81	*20·9*	44	*11·4*	0		387	*100*
Doctor—F.M.H.	655	*69·6*	158	*24·2*	39	*5·9*	2	*0·3*	654	*100*
Distance travelled by patient										
0–5 miles	681		80		53		0		814	
5–9 miles	36		81		7		2		126	
10–19 miles	0		44		23		0		67	
20–29 miles	0		33		0		0		33	
30+ miles	0		1		0		0		1	
Total	717	*68·8*	239	*23·0*	83	*8·0*	2	*0·2*	1,041	*100*

Age

The age of patients varied from 15 to 52 (table 3). The commonest age group requesting the IUCD was 20 to 40 with a peak between 25 and 30. The device is popular among older women who fear a late pregnancy and in whom the risk of oral contraception is greater (Royal College of General Practitioners, 1974). Of the women over 40, 68 were fitted with IUCDs and three of these were over 50.

One patient aged 15 was fitted. She was postpartum, had already resumed a sexual relationship with the baby's father and both she and her mother consented to her being fitted with a Lippes loop.

Parity

Parity ranged from 0 to 11 (table 3). Nulliparous patients were rarely fitted because of little demand, difficulty with the nulliparous os, and because of the remote risk of pelvic inflammatory

TABLE 3

AGE AND PARITY

Age	*–20*	*20–24*	*25–29*	*30–34*	*35–39*	*40–44*	*45–49*	*50–54*	*Total*
	26	208	391	220	128	51	14	3	1,041
Parity	0	1	2	3	4	5	6	7	8	9	10	11	*Total*
	14	192	437	228	93	41	12	12	7	4	0	1	1,041

disease causing sterility. Newer devices (for example, the ' Copper 7 ') are now recommended for nulliparae, and Howard (1972) reporting on 167 nulliparous women with ' Lippes loops ' had no difficulty in fitting them though there was a high rate of removal (13 per cent) and a high rate of spontaneous discharge and pregnancy (12 per hundred women years).

Method

Device fitted

Initially the Margulies spiral was all that was available, but this was unsatisfactory (Hull, 1969). The ' Lippes loop ' has been most popular accounting for 97 per cent and 88 per cent of our joint experience (table 4). More recently the ' Saf-T-Coil,' ' Copper 7 ' and ' Dalkon Shield ' have become available, but have been little used in this series. In 16 cases the device was not specified, 12 because fitting was not possible, three were abandoned because of medical indications, and one was not recorded.

TABLE 4

TYPE OF DEVICE FITTED BY EACH DOCTOR

Device	*Doctor*			
	F.M.H.	*%*	*J.M.H.*	*%*
' Lippes loop ' A	2	*0·3*	1	*0·2*
B	3	*0·5*	26	*6·7*
C	534	*81·6*	246	*63·6*
D	95	*14·5*	68	*17·6*
All ' Lippes loops '	634	*96·9*	341	*88·1*
' Gynaekoil ' (Medium)	10	*1·5*	0	
(Small)	5	*0·8*	0	
' Safe-T-Coil '	1	*0·2*	20	*5·2*
' Copper 7 '	0		2	*0·5*
' Dalcon Shield '	0		12	*3·1*
Not specified	4	*0·6*	12	*3·1*
Total	654	*100*	387	*100*

Time of fitting

The commonest time for fitting was during the first third of the menstrual cycle, often actually during menstruation, but any time during the cycle was acceptable. In some cases especially in older women or those with irregular cycles fitting was carried out as long as 30 or more days after the last period (table 5). In these cases the doctor has to satisfy himself that pregnancy is unlikely.

Nearly one quarter of patients were fitted postnatally, mostly at about six weeks after confinement; 13 were fitted before this but it was not the policy of either doctor to fit devices early in the puerperium. Particularly with breast feeding amenorrhoea may persist after delivery and some patients were fitted as long as ten weeks or more after delivery in the absence of menstruation.

TABLE 5

TIME OF FITTING IN RELATION TO LAST MENSTRUAL PERIOD AND PARTURITION

Days since last period		*Days since birth of child*	
–10	315	0–40	13
10–20	278	40–50	119
21–30	178	51–60	47
31–40	20	61–70	30
–40	15	–70	26
	806		235

TABLE 6

Year	*Easy*	*Moderately difficult*	*Difficult*	*Impossible*	*Not fitted (medical indication)*	*Total*
F.M.H.						
1965	2	0	0	0	0	2
1966	35	1	10	2	0	48
1967	110	7	5	0	1	123
1968	115	6	1	0	0	122
1969	122	5	1	2	0	130
1970	78	6	3	0	0	87
1971	62	13	4	0	0	79
1972	56	3	3	0	1	63
Total	580	41	27	4	2	654
Per cent	*88·8*	*6·3*	*4·1*	*0·6*	*0·3*	*100*
J.M.H.						
1967	9	2	2	1	0	14
1968	44	8	0	4	0	56
1969	45	16	2	2	1	66
1970	57	13	0	4	0	74
1971	54	18	3	4	0	79
1972	66	21	4	7	0	98
Total	275	78	11	22	1	387
Per cent	*71·1*	*20·2*	*2·8*	*5·7*	*0·3*	*100*

Ease of fitting

Fitting of IUCDs is usually simple, though difficulty may arise because of the operator's inexperience, or because of factors connected with the device or the patient. Retroversion or anteversion sometimes, and spasm of the internal os often gives rise to difficulty. Table 6 shows that one often (F.M.H.) had most difficulty in the early years due partly to technical difficulty with the ' Margulies Spiral ', but more often to inexperience. Increased difficulty was noted from 1970 onwards because as more general-practitioner colleagues fitted devices so only the technical problems were referred. Some degree of difficulty was experienced in 183 cases (17·8 per cent). This difficulty was attributed to spasm of the internal os (89), to retroversion or anteversion (37), to pain (27), difficulty with device or introducer (14), to inexperience (9) and in the remaining seven the problem was unspecified. In 26 cases it was not possible to fit an IUCD at the first attempt. In ten of these fitting was abandoned, 12 were subsequently fitted with a different device, three were referred to and fitted by consultants, and one was referred to another general practitioner who successfully fitted a device.

In 14 out of 32 cases fitted with small ' Lippes loops ' (size A and B) there was difficulty. These small loops are used for nulliparae and very small uteri both of which may cause difficulty

in fitting, so it is likely that the difficulty was related more to the patients than to the device. ' Lippes loop C ' was fitted most commonly and although this gave rise to difficulty in 112 out of 780 fittings (14·5 per cent) which is less than the total difficulty of 17·8 per cent. The ' Saf-T-Coil ' caused difficulty in fitting in 12 out of 21 cases.

Results

Symptoms

IUCDs often cause symptoms, but they also focus a woman's attention on to her genital tract and may tend to increase symptoms. Some symptoms are psychogenic and Freudian (e.g. ' dreaming of snakes ' led to a demand for removal from one woman). The commonest symptoms were bleeding, discharge, and pain; all three were frequently reported, but no attempt was made to quantify them.

Follow-up is not easy to determine in retrospective studies, but symptoms were recorded at the following intervals; (a) at fitting, (b) during the first three months, (c) at three months (when all patients were asked to return for examination), (d) between four and 12 months, (e) between one and two years, (f) between two and three years, (g) after three years.

Patients may, of course, report symptoms more than once during such an interval or may complain of more than one symptom. It was only possible to record one episode of complaint during each interval, but that complaint could comprise up to three symptoms, for example, pain, bleeding, and discharge.

Symptoms of bleeding were mentioned 690 times (table 7) mostly due to increased loss, but also to intermenstrual loss. A small number complained of decreased loss among whom were the 51 who became pregnant. Complaints of bleeding occurred at all times after fitting; there was no evidence that increased loss was related to the duration of use of the method.

TABLE 7
ABNORMAL BLEEDING

Increased loss	474	
Intermenstrual loss	74	
Postcoital loss	14	594
Continuous loss	25	
Frequent loss	7	
Decreased loss	12	96
Amenorrhoea	84	

Pain was the second commonest symptom and was reported 245 times. Usually the pain was felt in the abdomen (136), periods were painful in 61 cases, there was dyspareunia in 13 women and seven men. Pruritus vulvae was reported by 28 women. In three cases dysmenorrhoea which had been troublesome before fitting was relieved after fitting of an IUCD.

Discharge was the complaint in 162 occasions. Most often this was due to mucous discharge (118 cases), as sometimes offensive (36), bloodstained (6), or bizarre (2).

In 128 cases the symptom referred to the device itself, usually that it had been discharged—in 107 cases or that it had moved in 21. In 114 of these cases the device was outside the uterus, 101 found by patient, 11 in vagina and two in the cervical canal. In seven it was *in situ* and in the remaining seven had been lost. Of the women requiring refitting, 78 were refitted 104 times, two patients requiring as many as four refits.

Changes in libido were mentioned rarely. In 22 cases there was a reduction and in two an increase in libido.

Examination findings

Patients might be examined at any time after fitting. Findings were recorded at the same intervals as symptoms. Since some patients were examined many times and others not at all, it is impossible to record the frequency of examination findings by patient, but only by examination. The serious findings were those suggesting pelvic inflammatory diseases or malignancy. At the initial examination of 1,041 patients, ten women had enlargement or tenderness of the tubes or broad ligament which was not necessarily considered enough to advise against fitting.

In 1,961 re-examinations after fitting, tubal enlargement or tenderness was found in 42 cases and in a few cases indicated active pelvic inflammatory disease. In many cases minor genital pathology was discovered; erosion (135) cervical polypi (6), prolapse (3), *Trichomonas Vaginalis* (36), candidiasis (46), unspecified discharge (28), other vaginal abnormality (11). Thus complaints were often independent of the presence of the IUCD.

Effect on haemoglobin

Several studies have shown increased prevalence of anaemia in women using IUCDs (Zadeh *et al.*, 1967; Fulton *et al.*, 1967).

In this survey, haemoglobin estimations were made on women complaining of excessive bleeding, but one of us (J.M.H.) also carried out the investigation regularly at the time of fitting and thereafter at annual intervals, during routine follow up. Patients found to be anaemic were treated with oral iron. All subsequent haemoglobin results from these patients were excluded from the calculations.

The results showed a marked increase in the number of women presenting with a haemoglobin below 12·0g/100 ml. for the first time, as the survey progressed (table 8).

TABLE 8
HAEMOGLOBIN LEVELS

	At fitting	*After 1 year*	*After 2 years*	*After 3 years*
Number of readings	212	133	74	23
Per cent below 12·0g./100 ml	*4·3*	*24·8*	*29·7*	*30*

TABLE 9
MEDICATION

Iron and ascorbic acid	131
Gynaecological preparation	86
Iron	49
Ascorbic acid	24
Psychotropic drugs	14
Oral contraception	9
Progestogens	3
Glyceryl trinitrate	3
Drugs for incidental disease	13
	283

Treatment

Medication was prescribed on 283 occasions (table 9) the commonest being iron and vitamin C alone or in combination as treatment for heavy loss or anaemia. Preparations for unrelated gynaecological conditions (moniliasis, trichomonal infection) were prescribed 86 times. Progestogens or oral contraceptives were tried on 12 occasions to attempt to control heavy loss. This seems an inappropriate therapy since if the patient is to take the pill she does not need an IUCD. Glyceryl trinitrate was probably used more than three times at fitting, but its use (to relax the os) was not always noted.

The device was removed or changed for a variety of reasons, most commonly because of a wish for pregnancy or increased loss or pain (table 10). Surgery was required in 29 cases, some for termination of pregnancy, dilation and curettage, or evacuation of retained products of conception.

TABLE 10
REASON FOR REMOVAL OR CHANGE OF DEVICE

Pregnancy wanted	85
Increased loss	62
Pain	33
Psychological reason	18
Vaginal discharge	12
Decreased loss	12
Routine removal	11
Spontaneous loss of device	9
Intermenstrual bleeding	6
Examination findings	5
Cancer	1
Decreased libido	1
Unspecified	13
	268
Device removed	162
Device changed	106
	268

Follow-up

All patients were asked to attend after three months for follow-up. In some cases where the patient did not attend reminders were sent; 647 patients attended at three months, a further 47 attended after a reminder and an additional 84 attended later than three months. In all 263 did not attend at all.

For one of us (F.M.H.) further follow-up was left to the patient's discretion if there were symptoms, while the patients of the other (J.M.H.) were recalled annually. The mobility of patients and the fact that many patients were referred from outside the practices made follow-up difficult. Of the 343 patients attending for follow-up who were asked if they checked the device 249 did so and 94 said they did not bother.

Alternative method contraception

In 181 cases where the method was abandoned, often in order to try for pregnancy, no contraception (including not known) was used in 86 cases and oral contraception in 57 cases. In 25 cases the women were sterilised, in five the sheath was used, four husbands had vasectomies and four patients were menopausal.

In 85 the device was removed for the patient to embark on pregnancy. In most cases conception occurred very quickly (table 11).

TABLE 11

Interval from removal to conception (months)	*Number of pregnancies*
0–1	18
1–2	15
2–3	2
3–4	1
4–5	0
5–11	5
12–17	3
18–24	1
Unknown	12
Not pregnant	28
	85

Pregnancy

The pregnancy rate was 2·9 per hundred woman years i.e. pregnancies occurred in 21,445 months. The 51 cases in which pregnancy occurred have been analysed separately (Henderson and Hull, 1975).

Cancer and death

Four cases of cancer occurred:

(1) A 41-year-old patient who was para nine was referred through the county scheme in September 1968. She was fitted easily with a ' Lippes loop ' size C. At three months follow up she had slightly heavier periods and some intermenstrual bleeding. In June 1971 she returned at the request of the health visitor since she refused to consult her own doctor. Her periods were heavy and she had an abdominal mass similar to a 16-week pregnancy. This was a malignant ovarian cyst from which she died in October 1971.

(2) A 31-year-old National Health Service patient who was found at fitting to have a positive cervical smear. Cone biopsy showed minor invasion. She had a Wertheim hysterectomy and remains well.

(3) A 28-year-old National Health Service patient, who was para four, was found to have a positive cervical smear. Histology of her cervix following hysterectomy failed to reveal definite carcinoma.

(4) A 33-year-old patient referred by another doctor had had two children and an abortion. At fitting her cervical smear was reported as suspicious, but a follow-up smear by her own doctor was normal.

Two patients died. In addition to the death from ovarian carcinoma a second patient died from a subarachnoid haemorrhage.

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