

How well do we support whānau with postpartum contraception? Comparison of two Auckland maternity hospitals

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ABSTRACT

AIM: To compare the rates of recall of contraceptive discussion and provision of chosen contraceptive method before discharge among patients who recently birthed in two tertiary maternity units in Auckland, New Zealand.

METHOD: A cross-sectional survey of recently postpartum patients at tertiary and associated primary birthing units aligned with Auckland and Counties Manukau maternity services was undertaken in 2019 and 2020.

RESULTS: Five hundred and seventy-one patients took part in the survey. Overall recall around contraceptive discussions was low, as was the number of patients leaving hospital with their preferred method of contraception. Compared to Counties Manukau, almost twice as many patients at Auckland were unable to recall either an antenatal or postpartum discussion with a health professional about contraception (77% vs 39%, $p < 0.001$). Those birthing at Counties Manukau were also more likely to recall seeing a hospital contraceptive brochure than those at Auckland (42% vs 20%, $p < 0.001$). Twice as many patients at Counties Manukau left hospital with their chosen method compared to those at Auckland (31% vs 14%, $p < 0.001$). In addition, long-acting reversible contraceptives (LARCs) were more often chosen for contraception at Counties Manukau (31% vs 22%, $p = 0.01$) and more patients left hospital with their LARC compared to Auckland (13% vs 7%, $p = 0.03$).

CONCLUSION: These differences between two large tertiary maternity services suggests an opportunity for quality improvement around contraception provision.

In 2017, the Faculty of Sexual and Reproductive Healthcare (FSRH) in Britain published a guideline for contraception after pregnancy.¹ The Royal Australian and New Zealand College of Obstetricians and Gynaecologists (RANZCOG) reference the FSRH guideline as their advice. The following year, Te Toka Tumai Auckland published a contraception after birth guideline.² These guidelines recommend that patients should be offered the opportunity for discussion about the effectiveness of different contraceptives during the antenatal period and informed which contraceptives can be initiated immediately after delivery. In addition, the guidance states that maternity services need to ensure that there are sufficient numbers of staff able to provide contraceptive methods prior to discharge, including the more effective long-acting reversible contraceptives (LARCs—intrauterine contraceptive devices (IUCDs) and subdermal implants). The provision of contraception was further identified as a key health priority locally, and postpartum contraception was highlighted nationally by the

National Maternity Monitoring Group (NMMG) as a particular area for improvement.³

This study aimed to compare recall of contraceptive discussion during the antenatal or postpartum period and provision of chosen contraceptive methods before discharge among patients who recently birthed in two maternity hospitals in Auckland, New Zealand (Te Toka Tumai, Auckland and Te Whatu Ora Counties Manukau).

Methods

A cross-sectional survey of recently postpartum patients at both Auckland and Counties Manukau and their associated primary birthing units was undertaken in 2019 and 2020. Patients receiving inpatient postpartum care within 7 days of birth were approached by a study investigator and invited to participate. The study was undertaken over a 2-week period in both 2019 and 2020 at Counties Manukau sites and extended to Auckland sites in 2020 over a 1-month period.

Exclusion criteria included perinatal loss, discharge within 6 hours of delivery or requiring a translator. Detail of study methodology is available elsewhere.⁴

All data were collected directly from patients, including basic demographics (age, ethnicity, parity and birth location), pregnancy planning, previous contraceptive use, future contraception intentions, contraceptive information provided during and after pregnancy, and beliefs around contraceptive use. It was structured using Likert scales with a small number of free-text questions. Results of the survey were stored anonymously. The study was approved by the New Zealand Health and Disability Ethics Committee (HDEC 18NTB215AM06), and relevant localities.

Statistical analysis

Data management and analysis were undertaken using Stata (statistical software for data science) version 13. Self-identified ethnicity was collected using the New Zealand Census question,⁵ and then prioritised according to protocols for the health sector.⁶ Small numbers of patients identified as Middle Eastern, Latin American, and African (MELAA), or Other (non-New Zealand) European, or without ethnicity specified, and so these patients are grouped with New Zealand European.

Planned pregnancy was measured using the single statement “I was planning to be pregnant with this baby”. A six-point Likert scale was used, with “agree” and “strongly agree” grouped together to define “planned pregnancy”. These same groupings of “strongly agree” and “agree” were used to indicate an affirmative response to all other statements where six response Likert scales were provided, the remaining responses indicating the negative. The five response Likert scales “never, rarely, occasionally, a moderate amount, and always” were generally grouped as “moderate amount” and “always” indicating an affirmative response, the remaining responses indicating the negative. Categorical data were expressed as number and percentage, and comparisons made using Chi-squared tests. Normally distributed continuous data were expressed as mean (standard deviation) and compared using student t-tests. A p-value <0.05 was considered statistically significant.

Results

Two hundred and fifty-eight patients participated in Auckland and 313 at Counties Manukau over 2019 and 2020. The response rate was 83% and 94% of patients eligible and approached at the localities, respectively.

Although there were differences in the participant characteristics between localities, the groups were representative of their locality birthing populations (Table 1). Patients who birthed at Auckland were of lower parity, older maternal age and more commonly of New Zealand European ethnicity than those from Counties Manukau.

Patients at Auckland had more often used contraception before (185/258 [72%]) compared to those birthing at Counties Manukau (143/313 [46%]), $p < 0.001$. More than three quarters of respondents at Auckland were unable to recall either an antenatal or postpartum discussion around contraception with a health professional (197/257 [77%]) compared to 122/313 (39%) at Counties Manukau ($p < 0.001$). Recall of postpartum discussion was three times more likely at Counties Manukau (75/313 [24%]) than Auckland (20/258 [8%]), $p < 0.001$. Those birthing at Counties Manukau (132/313 [42%]) were also more likely to recall seeing a hospital contraceptive brochure than those at Auckland (54/258 [20%]), $p < 0.001$ (Table 2).

In 2020 we collected information regarding the timing of survey during the participants' postpartum stay. Patients at Auckland were more likely to be approached on day 3 or later (79/258, 30.6%) compared to those at Counties Manukau (28/140, 20%), $p = 0.02$; however, despite this were no more likely to have made a contraceptive plan (Table 3).

Very few patients planned to be pregnant in the next 12 months: 3/255 (1.2%) at Auckland and 12/312 (3.8%) at Counties Manukau, $p = 0.05$ (Table 3). Similar numbers at both localities reported having a contraceptive plan at the time of the survey—Auckland 138/258 (52%) and Counties Manukau 184/313 (59%), $p = 0.2$.

Twice as many patients at Counties Manukau (98/313 [31%]) left hospital with their chosen method compared to those at Auckland (36/258 [14%]), $p < 0.001$. LARCs were more often chosen for contraception at Counties Manukau (due to higher numbers of patients choosing a subdermal implant), 98/313 (31%) compared to Auckland (57/258 [22%]), $p = 0.01$. More patients left hospital with their LARC at Counties Manukau (39/184

Table 1: Patient demographics of survey participants in 2019 and 2020, compared to 2020 total birthing populations.

	Auckland (2020)		Counties Manukau (2019/2020)		Auckland vs Counties Manukau	All births Auckland 2020		All births Counties Manukau 2020	
	n=	258	n=	313		n=	6212	n=	7392
	n	%			p	n	%	n	%
Age (years)									
<20 years	0	0.0	14	4.5		78	1.3	377	5.1
20–24	18	7.0	56	17.9		405	6.5	1424	19.3
25–29	52	20.2	99	31.6		1203	19.4	2294	31.0
30–34	104	40.3	91	29.1		2495	40.2	2105	28.5
>=35	82	31.8	53	16.9	<0.001	2031	32.7	1192	16.1
Missing data	2		0						0.0
Ethnicity									
Māori	28	10.9	48	15.3		454	7.3	1486	20.1
Pacific people	41	15.9	112	35.8		726	11.7	2547	34.5
Indian	32	12.4	75	24.0		705	11.3	1243	16.8
Other Asian	52	20.2	18	5.8		1597	25.7	591	8.0
Other (NZ European/MELAA/European/Other)	105	40.7	60	19.2	<0.001	2712	43.7	1496	20.2
Missing data	0	0.0	0	0.0		18	0.3	29	0.4
Parity									
Primiparous	137	53.1	149	47.6		2981	48.0	2870	38.8
Second or third baby	107	41.5	120	38.3		2800	45.1	3239	43.8
Fourth or later baby	14	5.4	44	14.1	0.003	431	6.9	1229	16.6
Missing data	0	0.0	0	0.0		0	0.0	54	0.7

Table 2: Contraceptive knowledge transfer by locality of birthing.

	Auckland n=258		Counties Manukau n=313		p
	n	%	n	%	
Current pregnancy planned	181	70.2	167	53.4	<0.001
Prior contraception use (mod amount/always)	185	71.7	143	45.7	<0.001
Recall receiving a hospital contraceptive brochure	54	20.4	132	42.2	<0.001
Contraceptive discussions	n=257		n=313		
Recall both antenatal and postpartum discussion	17	6.6	62	19.8	<0.001
Recall antenatal discussion only	23	8.9	54	17.3	0.004
Recall postpartum discussion only	20	7.8	75	24	<0.001
Recall neither antenatal nor postpartum discussion	197	76.7	122	39	<0.001
Feels informed about contraceptive options	198	77	238	76	0.85
I would like more information about my contraceptive choices	69	27.1	118	37.8	0.007

Table 3: Postpartum contraceptive planning by locality of birthing.

	Auckland N=258		Counties Manukau N=313		p
	n	%	n	%	
Planning to be pregnant in the next 12 months	3	1.2	12	3.8	0.05
Contraceptive plan made	138	52.1	184	58.9	0.2
Chosen contraceptive method					
Natural family planning	10	3.9	3	1	0.02
Withdrawal method	5	1.9	6	1.9	0.99
Condoms	49	19	33	10.5	0.01
COCP (combined oral contraceptive)/mini-pill	13	5	29	9.3	0.05
IUCD/Mirena	41	15.9	50	16	0.98
Jadelle/rods	17	6.6	49	15.7	<0.001
Depo Provera	4	1.55	25	8	<0.001
Vasectomy	12	4.65	11	3.5	0.49
Tubal ligation	8	3.1	18	5.8	0.13

Table 3 (continued): Postpartum contraceptive planning by locality of birthing.

	Auckland N=258		Counties Manukau N=313		p
	n	%	n	%	
Leaving hospital with chosen method of contraception					
Of those who reported making a plan	36/138	26.1	98/184	53.3	<0.001
Of all survey respondents	36/258	14	98/313	31.3	<0.001
Leaving hospital with a LARC	58	22.1	99	31.3	0.01
Of those who planned to use a LARC	18/58	31	39/99	39.4	0.3
Of all survey respondents	18/258	7	39/184	12.5	0.03
Alternatives					
Referred to the contraception clinic to get chosen method	9	6.5	37	20.1	0.001
Referred to my GP/family planning to get chosen method	9	6.5	7	3.8	0

[12.5%]) compared to Auckland (18/258 [7%]), $p=0.03$. Patients at Auckland were more likely to plan to use condoms (19% vs 11%, $p=0.01$), while those at Counties Manukau were more likely to use Depo Provera (8% vs 2%, $p<0.01$) and the subdermal implant (16% vs 7%, $p<0.01$).

Discussion

This analysis, comparing two large Auckland tertiary maternity services, suggests a difference in the quality of contraceptive services provided. Patients at Auckland were less likely to report having seen the contraceptive pamphlet provided universally at both units, less likely to recall a discussion about contraception during the antenatal or postpartum period, and also less likely to leave hospital with their chosen method of contraception, including LARCs.

Offering patients a contraceptive method before leaving the hospital is important. Asking patients to come back for another contraceptive visit has been identified as a barrier to the uptake of postpartum contraception, with studies showing 30–50% of patients not attending further visits after leaving the hospital.⁷

A short inter-pregnancy interval (IPI) of fewer

than 12 months increases the risk of complications, including preterm birth, low birthweight, stillbirth and neonatal death.⁸ The FSRH guidelines were written the year following a UK study reporting that almost 1 in 13 patients presenting for a termination of pregnancy (TOP) or delivery had conceived within a year of a previous birth and that opportunities were being missed to prevent unintended pregnancies.⁹ Similarly, a New Zealand study of patients seeking a TOP within 6 months of delivery also showed that opportunities were missed in the delivery of contraception postpartum.¹⁰ In addition, our survey illustrates that it is not patients' intention to become pregnant again within the first 12 months of birth. Certain groups may be at higher risk of unintended pregnancy, particularly those leaving hospital within 6 hours of birth and non-English speaking patients. Careful consideration needs to be given to how we provide equitable access for all.

Although at the time of the survey antenatal contraceptive discussions were not a requirement under the Primary Maternity Services Notice 2021 (Section 88), international evidence suggests this is best practice, and the updated Section 88 (2021) includes discussion of postpartum contraception in the antenatal period.^{11–14} The UK APPLES

study has found good acceptability of antenatal contraceptive counselling at 22 weeks gestation, followed by considerable demand for immediate postpartum IUCDs and implants.¹⁵ The contraceptive pamphlet available at both hospitals (in the current study) is included in an information pack given to patients around 24 weeks and is also available at antenatal clinics. It includes information regarding side effects and which methods are appropriate for immediate use with breastfeeding. However, contraception discussions need to continue with patients at visits throughout pregnancy, as international literature highlights the importance of multiple discussions.¹⁶ Only 16% of patients at Auckland recall having an antenatal discussion regarding contraception. This low figure is consistent with data from the Auckland annual clinical report where only 17% of patients had made a documented decision regarding contraception in the antenatal period.¹⁷

Over 50% of patients left hospital with no contraceptive plan or a plan to use a method with a high failure rate (natural family planning, withdrawal method, condoms). Provision of LARCs immediately after childbirth is associated with reduced risk of unintended pregnancy and helps patients optimise their spacing of children.¹⁸ Both hospitals have midwives trained in subdermal implant insertion. Counties Manukau, however, have dedicated nursing staff on the postpartum wards whose role is to offer advice on and delivery of contraception before discharge. This is in line with the commentary of the APPLES study suggesting that expanding the range of healthcare professionals who are trained to provide methods may remove barriers to contraceptive access.¹⁹ These dedicated staff may help explain the large differences in postpartum contraception discussion at the two hospitals and why 53% of patients at Counties Manukau go home with their chosen method, compared to only 26% of patients at Auckland. The contraceptive nurses started employment

during 2019, and by 2020 the staff had increased to providing this service daily. This strategy may be useful to consider for Auckland.

This study was undertaken during 2019 and 2020 in Counties Manukau and during 2020 in Auckland. Te Manatū Hauora – Ministry of Health published Aotearoa New Zealand's guidance on contraception in December 2020,²⁰ with specific mention around postpartum contraception. This guideline also supports the FSRH recommendation that contraception counselling be a routine part of antenatal care and that health practitioners should offer pregnant individuals the opportunity to discuss and document a contraception plan prior to birth. It also recommends that contraception is initiated immediately after birth if the person is medically eligible. The guideline has been endorsed by the Royal Australian and New Zealand College of Obstetricians and Gynaecologists (RANZCOG), Royal New Zealand College of General Practitioners (RNZGP), the New Zealand College of Midwives (NZCOM) and New Zealand Family Planning (FP), which may help prioritise initiation of contraception after delivery rather than the previous conventional six-week visit.

The results of this survey have been a driver in the creation of a multidisciplinary action plan group at Te Toka Tumai Auckland to prioritise its needs around contraception. An action plan needs to enable not only more contraceptive discussion, but good documentation of the contraception chosen by a woman. The goal is to enable patients to make contraceptive choices and to obtain their choice immediately after birth if they wish.

Provision of postpartum contraception is a key aspect of reproductive health, and our survey highlights low rates of contraceptive discussion and contraceptive planning in the immediate postpartum period. We plan to repeat the same survey at the end of 2023 at both maternity hospitals to see whether the action plan has been effective.

COMPETING INTERESTS

Nil.

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