Title Page

A better model of care after surgery for early endometrial cancer – comprehensive needs assessment and clinical handover to a woman's general practitioner.

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A better model of care after surgery for early endometrial cancer – comprehensive needs assessment and clinical handover to a woman's general practitioner.

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Abstract:

Background: Endometrial cancer is the most common invasive gynaecological cancer in Australia. Despite the fact that review after treatment of early endometrial cancer has not been shown to detect recurrent disease, practice at several hospitals brings women back for specialist hospital review for 5 years after definitive cancer surgery.

Aim: Implement an improved model of follow-up care following hospital treatment for early endometrial cancer.

Evaluation Methods: Quantitative and qualitative.

Results: Seventy-three of the eligible eighty-one women undertook the model of care. All general practitioners agreed to follow-up care. 31 women (42%) and 37 general practitioners

(51%) returned surveys. All women found the nurse consultation very useful or useful with 77% reporting making lifestyle changes and 87% found the GP consultation very useful or useful with 72 % reporting making lifestyle changes. 89% of GPs found the care plan useful, 94% set up patient recall systems, 79% used the care plan to develop their own care plan, 100% felt confident in providing follow-up care with 91% reporting the care plan and hospital processes improved their confidence. Comparison with the pre-cohort women showed higher rates of communication at various care points to GPs (from $P < 0.001$); more referrals ($P < 0.001$); and, a projected decrease of 9 hospital doctor appointments per patient.

Discussion: With an increasing number of people surviving cancer, in order to address holistic health needs and maintain tertiary service capacity, general practice will be required to provide more follow-up care. Our model demonstrates an acceptable and quality mechanism for this to occur.

Introduction

Endometrial cancer is the most common invasive gynaecological cancer in Australia and the fifth most common cancer in females in Victoria with 688 new diagnoses in 2013 (1, 2). It currently affects approximately 1 in 56 Australian women by the age of 75 years (2). Over the ten year period from 2004 to 2013, its incidence increased by 15% and its mortality increased by 23% (2). This increase in incidence and mortality of women with uterine cancer parallels the increased prevalence of the known risk factors of uterine cancer, in particular obesity and diabetes, and is expected to continue until at least 2029 (1, 2, 3).

In 2013, the 5-year relative survival for endometrial cancer was 85%, a significant increase from 76% in 1988-1992 (2). This increase in both the incidence and survival of cancer is also seen more broadly across cancer care, resulting in more survivors of cancer care. The current health care system whereby so much cancer care is undertaken in specialist and hospital settings therefore faces challenges in meeting the ongoing and broad range of holistic physical and psychosocial needs of the increasing number of people surviving cancer while also addressing cancer care that needs to occur in specialist settings. This has led to the development of alternative models of cancer follow-up that increasingly emphasise the importance and integration of general practice in the provision of care and a recognition that primary care must play a greater role in cancer control across the continuum of care, from prevention and early detection to survivorship and palliative care (4, 5, 6, 7, 8).

The staging by FIGO classification (9) and definitive treatment for early endometrial cancer is surgical and involves an assessment of the peritoneal cavity, total hysterectomy and bilateral salpingo-oophorectomy with lymphadenectomy and staging as per local protocol. . Once adequately surgically staged as early (FIGO Stage 1 A and B Grade 1 and 2), there is a low risk for recurrent disease and adjuvant treatment with chemotherapy or radiotherapy is therefore not required or recommended (10). The FIGO staging is highly prognostic (11) and identified and treated in this way, a woman with early endometrial cancer has a 5 year survival rate from her cancer of about 95%, which is a significant increase over the last 20 years (3).

The project took place at the Royal Women's Hospital in Parkville, which is the largest specialist tertiary women's hospital in Australia. The gynaecology oncology service cares for women throughout Victoria and has the full range of specialist and multidisciplinary services required for the tertiary care of women with gynaecological malignancies. Over twelve months of 2011/2012, 132 cases of endometrial cancer were treated at the hospital, representing 35% of all new gynaecological cancer cases. Eighty percent of these endometrial cancers were early. Follow-up after surgical management for these women was previously based on recommendations from Western and Central Melbourne Integrated Cancer Services (WCMICS) which involves 5 years of regular hospital doctor review (12).

It was recognised by the service that in returning women with a wide variety of chronic health conditions and risk factors for hospital care over five years without any evidence of benefit for cancer care that there were potential unintended negative effects including:

- Limiting the identification and management of a woman's health risks and holistic needs;
- Limiting the ability to work in partnership with a woman and her general practitioner to address these;
- Maintaining the woman, her family and the health system focus on the past endometrial cancer; and,
- Tying up the resources of tertiary services in dealing with issues which are better managed in a primary health care setting.

The service therefore partnered with the General Practice Liaison Unit at the hospital to obtain WCMICS funding to explore a reconfiguration of the model of follow-up care after

surgery for women with early endometrial cancer from specialist to general practice. The General Practice Liaison Unit at the Women's has a strong history of development and delivery of cross health sector models of care at the hospital, including shared maternity care and shared breast cancer care (13).

The safety of a move of postoperative follow-up care from the hospital to general practitioner was supported by the fact that regular review of women after treatment of early endometrial cancer has not been shown to detect recurrent disease with schedules and the provider of follow-up determined mostly by the evolution of services over time and not evidence based (14) and that two systematic reviews of trials where all cancer-related follow-up was provided in general practice found no differences between primary care and specialist follow-up in terms of patient quality of life, satisfaction with care or clinical outcomes (15, 16).

Aims

The aim of the project was to develop a general practitioner model of follow-up care after surgical treatment with early endometrial cancer that provided comprehensive clinical handover to a woman's GP and was acceptable to women and GPs.

The model of care was developed around the essential features of high quality models of survivorship care including: comprehensiveness; a coordinated approach; and, individualised care provision (17). Elements with an evidence base incorporated in the model included increasing continuity of care by providing follow-up care by the woman's usual general practitioner; multidisciplinary risk stratification; the use of validated psychosocial screening tools; a nurse led consultation; GP led patient recall systems; and, rapid access pathways for GP use (18, 19, 20, 21, 22, 23, 24).

Methods

The project was co-led and governed by the Gynaecology – Oncology and General Practice Liaison Units. In addition, the steering group included a local general practitioner, representative from a primary health network, a consumer, representative from a peak consumer group and representative from WCMCIS. In order to ensure practicability in the provision of clinical care, accountability and clinical appropriateness; the model, care plan, communication letters and methods, and surveys had initial input and interactive

development from the steering group and a wider range of consumers, general practitioners, general practice staff and hospital staff.

All likely eligible women were provided with written information about the project on hospital admission for their surgery. Eligibility of tumour type of early endometrial cancer (FIGO Stage 1 A and B Grade 1 and 2) and having a regular general practitioner was confirmed at the hospital multidisciplinary tumour board (MDT) meetings, after which a letter detailing the findings of the MDT meeting and a woman's eligibility were sent to a woman's general practitioner. The surgeon providing the woman's post-operative outpatient review after the MDT meeting and approximately six weeks after surgery then confirmed eligibility and offered the woman the new model of care. Women provided verbal consent to the surgeon who then passed on her details to a senior clinical nurse who organised a one hour consultation between the woman and hospital nurse. Prior to this consultation, information was mailed to the woman. This included; a letter about the consultation and its purpose; a non -identifiable questionnaire; the usual oncology service Supportive Care Screening tool; and, appointment details for the nurse consultation, with instructions to return the documents prior the consultation.

At the nurse consultation a structured care plan was completed with input from the medical record, screening tools, the woman and limited examination findings. The care plan included: assessment and documentation of body mass index (BMI) and blood pressure; diagnosis and treatment; care needs identified; referrals made; cancer care follow-up required (with domains of: history; side effects of surgery; possible signs of recurrence; psychosocial health; incontinence; early onset menopause and preventive health); when and how to refer back or obtain advice; and resources for general practitioners and women (available from the authors).

Written information about community supports and "Endometrial Cancer and Staying Well" was provided to all women (including in Greek and Arabic if required), with targeted written information provided as required (e.g. on smoking cessation, menopause) and internal hospital referrals made if required. Women were instructed to see their GP in approximately one month to discuss the care plan. Care plans were then ratified by the Head of Gynaecology Oncology Unit, with a copy sent to both the woman and her GP. The GP was subsequently called by the nurse to: ensure that the care plan was received; ensure the GP would provide

follow-up care; reinforce the schedule of visits and hospital re-referral and support pathways; and, address any queries or concerns.

Women and their GP were sent non-identifiable questionnaires a month after the nurse consultation. Women's files and medical records were reviewed by a medical practitioner for the evaluation parameters. In addition, 5 years of medical records and service data from a pre-cohort model of 20 women who had been diagnosed with early endometrial cancer in 2009 was examined by an experienced medical practitioner for comparison of communication to GP, referral parameters and service utilisation.

Results:

Uptake by women

81 women were identified as eligible, with 73 women undertaking this model.

Uptake by GPs

72 GPs were involved in the care of the 73 women. All GPs nominated by a woman agreed to involvement in the project and ongoing follow-up care for the woman.

Survey responses of Women

Women were sent a survey 30 days after the nurse consultation:

31 (42%) participants returned the post survey.

Table 1: Usefulness of appointment with Nurse and GP

Table 2: Care plan discussion and reported lifestyle changes

Lifestyle changes reported made as a result of the nurse consultation (n=23):

- 2 did not answer
- 16 made changes in their diet
- 10 increased their physical activity/exercise
- 1 stopped smoking
- 1 started relaxation activities to decrease stress
- 1 changed their attitude about ageing
- 1 increased socialisation activities
- 1 now having regular check-ups with her GP

Five women had subsequent in depth phone surveys in order to collect qualitative data about her hospital care and GP follow-up care.

- All women commented positively about the nurse led clinic, the verbal information and written resources provided and referrals made
- All women who had seen their GP after the nurse appointment had talked to their GP about the follow up cancer care they required and found it reassuring
- All women said they regularly saw their GP for other medical issues

Survey responses of General Practitioners

72 GPs were involved in the care of the 73 women.

Participating GPs were sent a paper based survey along with their patient's Care Plan.

- 37 (51%) GPs returned the survey

Table 3: Usefulness of Care Plan for GPs

Table 4: Feedback from GPs - Care plan, recall systems and confidence

Communication to woman's General practitioner:

Table 5: Communication to woman's General practitioner of pre-cohort and model

Patient referrals made by nurse:

Table 6: Referrals made by Nurse of pre-cohort and model

"In the beginning, patients are focused on the acute issues of getting through their surgery and the recovery afterwards. The reality is that most need to improve their diet and lifestyle to reduce their risk of developing obesity-related chronic diseases, or to better manage these conditions if they are already present. Referring patients to a dietitian here allows that crucial step of making sure patients are linked in with the right dietitian in the community for longer-term support." RWH Dietitian.

“ These are patients well deserving of our help, that we just didn’t see before” Dietitian
RWH

Hospital Capacity:

Table 7: Specialist outpatient doctor appointments of pre-cohort and model

An in confidence cost analysis was performed that was presented to the hospital’s New Business Committee which demonstrated substantial savings in resources that could be then relocated.

Limitations:

Although positive, the evaluation by questionnaires for both women and GPs was limited to about half of both cohorts. The study did not follow- up if a woman’s reported changes in lifestyle occurred and were sustained, nor the health benefit of care by general practitioners and referrals and allied health services, and ensuring appropriate adherence to the cancer follow-up care guidelines were adhered to. As such, this study did not examine long term outcomes of the new model and therefore how recurrence and mortality compares to the hospital based follow-up care model. Although the current evidence that regular review in these cancers has not been shown to detect recurrent disease, these longer term evaluation findings would be a valuable extension of this study.

Discussion:

Survivorship after cancer treatment is increasing, with a resultant increasing burden on health care settings. The healthcare needs of cancer survivors is wide-ranging and includes addressing cancer risk factors, surveillance and recurrence, broader physical and mental health, psychosocial support, information on cancer, late treatment effects and adjusting to life after treatment (4, 25, 26).

Tertiary sectors that have provided the definitive treatment for the cancer are not well placed to routinely provide follow-up care or address a person’s ongoing whole person post cancer survivorship needs as such care: is not evidenced; utilises expensive tertiary hospital services and thus decreases access to others; and, impacts on a person’s holistic care needs being addressed by their general practitioner and other community services. Well supported and connected general practice is best placed to address the holistic ongoing health care needs of

cancer survivors in order to provide the continuous, coordinated, comprehensive and multidisciplinary care required for both individuals and families that span prevention, diagnosis, shared follow-up and survivorship care, and end-of-life care and to maintain tertiary service capacity.

This project supports the development and implementation of a care paradigm whereby comprehensive needs analysis and clinical handover by a hospital nurse back to a woman's general practitioner was highly acceptable and useful to both women and their general practitioners. This included; reported lifestyle changes; high levels of GP confidence in the provision of follow-up cancer care; greater hospital identification and communication of a woman's care needs; and, the creation of hospital service capacity. In demonstrating statistically significant improvement in a number of the parameters measured in the new model of care compared to the historical model of care, this study builds on other evidence that GP led cancer follow-up care is both safe and acceptable (14, 15, 16).

As a result of the findings from this project, after endorsement by both the Hospital's Executive Quality and Safety and New Business committees the new model has been implemented as standard care at our hospital.

Competing interests:

Nil

Ethics approval:

Surveys were approved by The Royal Women's Hospital Human Research Ethics Committee.

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Table 1: Usefulness of appointment with Nurse and GP

	Not useful at all	Somewhat useful	Neutral	Useful	Very useful
Usefulness of appointment with the nurse (n=31)	0	0	0	13 (42%)	18 (58%)
Usefulness of follow-up appointment with GP (n=30) (1 did not answer)	0	1 (3%)	3 (10%)	12 (40%)	14 (47%)

Table 2: Care plan discussion and reported lifestyle changes

	No	Yes
Made lifestyle changes as result of the nurse consultation (n=30 as 1 did not answer)	7 (23%)	23 (77%)
Saw GP since care plan (n=31)	4 (13%) (3 of these 4 were due to see their GP the following week)	27 (87%)
Discussed care plan with GP (n=27)	3 (11%)	24 (89%)
Made lifestyle changes as result of the GP consultation(n=25 as 2 did not answer)	7 (28%)	18 (72%)

Table 3: Usefulness of Care Plan for GPs

	Not useful at all	Somewhat useful	Useful	Very useful
Usefulness of the care plan	0	4 (11%)	19 (51%)	14 (38%)

Table 4: Feedback from GPs - Care plan, recall systems and confidence

	No	Yes
Seen the patient since receiving the care plan (n=37)	3 (8%)	34 (92%)
Any issues arising at follow up appointment you were unsure how to manage (n=34)	34 (100%)	0
Used information in the care plan as a guide to discussion with patient (n=34)	9 (26%)	25 (74%)
Used the care plan to develop GP management/care plan (n=34)	7 (21%)	27 (79%)
Set up recall and reminder systems for follow-up care as per schedule provided (n=34)	2 (6%)	32 (94%)
Confident in providing follow-up cancer care for the woman (n=37)	0 (0%)	36 (100%)
Care plan and hospital processes improved GP confidence (n=35 as 2 did not answer)	4 (9%)	32 (91%)

Table 5: Communication to woman's General practitioner of pre-cohort and model

	Pre-model cohort (n=20)	New model (n=73)	P value (Fisher's exact test – 2 sided)
Communication sent to GP after Multidisciplinary Team meeting	0	73 (100%)	<0.001
Discharge letter sent to GP after inpatient care	15 (75%)	73 (100%)	<0.001
Communication sent from the outpatient department at 5 years*	17 (85%)	73 (100%)	<0.01
Communication included Blood Pressure and Body Mass Index	1 (5%)	73 (100%)	<0.001
Communication included when to refer back to the hospital	1 (5%)	73 (100%)	<0.001

*1 patient was lost to follow up after 12 months with no documented clinical handover; 2 women were having ongoing outpatient care at RWH > 5 years with no documented reasoning for this.

Table 6: Referrals made by Nurse of pre-cohort and model

	Pre-model cohort (n=20)	New model (n=73)	P value (Fisher's exact test – 2 sided)
Patients with referrals made	2 (10%)	53 (73%)	<0.001
Health referrals made by Nurse	2	56	
Type referrals	Both to Menopausal Services after Cancer (MSAC)	29 referrals to dietician 13 referrals to physiotherapy 7 referrals to Menopausal Services after Cancer (MSAC) 2 referrals to Sexual Health Clinic 1 referral to Family Cancer Clinic 2 referrals to Psychosexual Services 2 referrals to Incontinence Clinic	

Table 7: Specialist outpatient doctor appointments of pre-cohort and model

	Pre-model cohort (n=20)	New model (n=73)
Total number specialist doctor outpatient appointments	202	73
Average number of specialist doctor outpatient appointment per patient over 5 years	10	1*

*Projections based on project findings

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