

## A Nurse-Led Lifestyle Intervention for Endometrial Cancer Survivors



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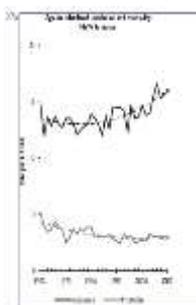
## Background

- ❖ Endometrial cancer is the most common gynaecological malignancy in developed countries.
- ❖ Type 1 endometrial cancer (endometrioid adenocarcinoma) is the most common and accounts for 80-90% of cases.
- ❖ The incidence rate for 2011 was 17.4 women per 100,000, (up from 15.5 per 100,000 in 2007).
- ❖ Between 1999 and 2008, the age standardised incidence rates for uterine cancer rose by 19.1%.
- ❖ Anticipated this increase will continue!

## Background

- ❖ Mortality rates declining (3.1 per, 100,00).
- ❖ The five year relative survival is above 80%.
- ❖ The majority will become cancer survivors!

Cancer in NSW:  
 Incidence, Morbidity  
 & Prevalence  
 report 2005  
 P 151



## Background

- ❖ Risk factors for this disease are associated with stimulation of the endometrium by excess oestrogen and include:
  - obesity,
  - diabetes,
  - hypertension,
  - late menopause,
  - null parity
  - Unopposed oestrogen therapy.
- ❖ Patient population has increased risk of co-morbidities that can impact on recovery and overall survival.
- ❖ Opportunity for oncology nurses to address the general health of these women during post treatment phase of cancer care.

## Study Aim

- ❖ To Investigate the feasibility of a nurse-led lifestyle intervention for endometrial cancer survivors.

## The Intervention

- ❖ **Motivational interviewing** led by an **Advanced Practice Nurse** using the **5A's approach** to direct the interview at routine follow up.



- ❖ **Tailored print material** which highlights the need for lifestyle changes & provides tips to encourage change was given.



- ❖ Referral to the **"NSW Get Healthy coaching service"** (optional component).



## One off Counselling Session

### Motivational Interviewing

- ❖ Express empathy
- ❖ Develop discrepancy
- ❖ Roll with resistance
- ❖ Support self-efficacy

### 5 A's Approach

- ❖ Assess
- ❖ Advise
- ❖ Agree
- ❖ Assist
- ❖ Arrange follow up



## NSW get healthy coaching service

- ❖ Is a free service which provides 10 telephone coaching calls over a 6 month period.
- ❖ Provides participants with an information booklet and tips & tools for healthy eating and physical activity for maintaining a healthy weight.
- ❖ Provides a journal for participants to track their progress
- ❖ Services are also provided online with participants given secure access to the website.



## Selection Criteria

### Inclusion Criteria

- ❖ Women diagnosed with Type 1 endometrial cancer.
- ❖ Histology of endometrioid adenocarcinoma.
- ❖ Aged over 18 years.
- ❖ Have the ability to speak and read English.
- ❖ Have medical clearance to participate in the study.
- ❖ Are willing to participate and give both verbal and written consent.

### Exclusion Criteria

- ❖ Women diagnosed with Type 2 endometrial cancer.
- ❖ Histology of serous adenocarcinoma, clear cell adenocarcinoma, mucinous carcinoma and squamous cell carcinoma or mixed endometrioid adenocarcinoma with another histology type.
- ❖ Do not have medical clearance.
- ❖ Are not willing to give consent or participate in the study.

## Outcomes Measured

### Primary

- ❖ The primary outcome was feasibility of the intervention. This was measured using the five dimensions of the RE-AIM Framework – *Reach, Efficacy, Adoption, Implementation & Maintenance*.

### Secondary

- ❖ The secondary outcomes looked at the behaviour change in the endometrial cancer survivors and are the following:
  - Increasing exercise
  - Improved diet (Increase F&V; fibre; decrease fat)
  - Calling / use of the "NSW Get Healthy service".
- ❖ These secondary outcomes were measured by the Efficacy dimension of the RE-AIM framework.

RE-AIM framework	Methods	Data collection tool
<b>Reach:</b> The absolute number of participants who participate in a given program	Measure: •No of participants •Drop outs •Representativeness of participants	•% who participate % drop out •Baseline demographic data
<b>Efficacy:</b> The impact of an intervention on important outcomes.	•Current physical activity •Dietary Behaviour •BMI •Uptake of the NSW GH service at 1 & 6 months post intervention	•The Active Australia Survey •Dietary Behaviour Questionnaire •BMI equation •weight (kg): height (M) <sup>2</sup> •% of participants who take up the NSW GH service

RE-AIM framework	Methods	Data collection tool
<b>Adoption:</b> The absolute number and representativeness of setting and staff who are willing to offer the program.	Collect data on •the intervention location •The staff involved •Level of expertise •Adoption rate	Online survey sent out to health professionals through professional bodies to gain the views on the feasibility of implementing the intervention.
<b>Implementation:</b> The extent to which a program is delivered as intended.	Collect descriptive data on: •the intervention type •Protocol deviations •Barriers to overcome	Qualitative interviews with participants.
<b>Maintenance:</b> The extent to which a program has become institutionalised or the degree to which initial changes in participant behaviour are sustained at six months.	Measure: •Current physical activity •Dietary Behaviour •Uptake of the NSW GH service at 6 months •BMI	•The Active Australia Survey •Dietary Behaviour Questionnaire •% of participants who take up the NSW GH service •BMI equation

## Physical Activity – Minutes in each Activity

Variables (n=19)	Baseline	One Month	Six months
<b>Walking Continuous</b>			
Mean (SD)	103 (105.3)	162.3 (134)	221.3 (238)
Median (IQR)	60 (110)	120 (160)	120 (300)
25 <sup>th</sup> percentile	30	60	60
75 <sup>th</sup> percentile	140	220	360
<b>Gardening or yard work</b>			
Mean (SD)	26.4 (51.2)	85 (105)	68.5 (102.7)
Median (IQR)	0 (32.5)	37.5 (95)	15 (120)
25 <sup>th</sup> percentile	0	17.5	0
75 <sup>th</sup> percentile	32.5	112.5	120
<b>Vigorous Activity</b>			
Mean (SD)	18.3 (31.6)	47.2 (62)	60 (64.4)
Median (IQR)	0 (37.5)	15 (115)	50 (105)
25 <sup>th</sup> percentile	0	0	0
75 <sup>th</sup> percentile	37.5	115	105
<b>More Moderate Activity</b>			
Mean (SD)	21.4 (37.6)	65.7 (55.3)	74.29 (87.7)
Median (IQR)	0 (60)	70 (120)	20 (90)
25 <sup>th</sup> percentile	0	0	0
75 <sup>th</sup> percentile	60	120	90

## Physical Activity – Mean differences

Variables (n=19)	Baseline to one month	Baseline to six months	One month to six months
<b>Walking Continuous</b>			
Wilcoxon Rank (Z)	-1.811	-2.224	-1.116
Effect size (r)	-.41	-.51	-.25
P value	.070	.026	.265
<b>Gardening or yard work</b>			
Wilcoxon Rank (Z)	-1.693	-1.432	-.063
Effect size (r)	-.45	-.38	-.01
P value	.091	.152	.950
<b>Vigorous activity</b>			
Wilcoxon Rank (Z)	-.938	1.355	-.492
Effect size (r)	-.31	-.50	-.10
P value	.348	.176	.623
<b>More moderate activity</b>			
Wilcoxon Rank (Z)	-1.572	-1.483	-3.14
Effect size (r)	-.59	-.56	.11
P value	.116	.138	.753

## Dietary Behaviour

Variables (n=19)	Baseline to one month	Baseline to six months	One month to six months
<b>Total Dietary Behaviour</b>			
t-test	-3.69	-2.27	.556
Effect size (Cohens' d)	-0.812	-0.57	0.105
P value	<b>.002</b>	<b>.036</b>	.585
<b>Fat subscale</b>			
t-test	-3.24	-2.33	.743
Effect size (Cohens' d)	-0.722	-0.56	0.144
P value	<b>.004</b>	<b>.032</b>	.467
<b>Fibre Subscale</b>			
t-test	-1.64	-1.64	No differences
Effect size (Cohens' d)	-0.306	-0.306	
P value	.117	.117	

## NSW get healthy coaching service

Measures (n=19)	n(%)
<b>Agree to Call at Baseline</b>	
Yes	<b>12 (63.2)</b>
No	7 (36.8)
<b>Called by One Month</b>	
Yes	10 (52.6)
No	9 (47.4)
<b>Called By Six Months</b>	
Yes	11 (57.9)
No	8 (42.1)
<b>Health Professional Referral</b>	
Yes	13 (68.4)
No	6 (31.6)
<b>Medical (GP) Clearance</b>	
Yes	5 (26.3)
No	14 (66.7)
<b>Participants actively Using the Service</b>	
Yes	<b>6 (31.6)</b>
No	13 (68.4)

RE-AIM framework	Evaluation Findings
<b>Reach:</b> The absolute number of participants who participate in a given program.	<p>*Many participants were exercisers prior to the intervention, limiting reach.</p> <p>*Small sample size limits generalizability, therefore more research is needed.</p>
<b>Efficacy:</b> The impact of an intervention on important outcomes.	<p>*These results are promising suggesting that the nurse-led lifestyle intervention for endometrial cancer survivors is feasible.</p> <p>*However more research is needed to ensure generalizability to the wider population.</p> <p>*Need to investigate other sources of referral other than the "Get Healthy service" that may suit some participants better.</p>

RE-AIM framework	Evaluation Findings
<b>Adoption:</b> The absolute number and representativeness of setting and staff who are willing to offer the program.	<p>More research in a variety of different settings is needed to ensure generalizability.</p> <p>There is support among Australian Health professionals to implement a nurse-led intervention for endometrial cancer survivors, as a component of cancer care.</p>
<b>Implementation:</b> The extent to which a program is delivered as intended.	<p>This research was supported in this single site study but more research in wider number of settings is needed.</p>
<b>Maintenance:</b> The degree to which initial changes in participant behaviour are sustained at six months.	<p>Evidence to suggest some maintenance of behaviour change in relation to diet and exercise.</p> <p>However, more research is needed to verify if these changes can be maintained long term.</p>

## Summary

- ❖ Overall these results are promising, suggesting that a nurse-led lifestyle intervention for endometrial cancer survivors is feasible.
- ❖ However more research with greater numbers, in a variety of settings is needed to ensure generalizability.
- ❖ A multicentre-randomised control trial, evaluating the intervention using the RE-AIM framework is needed.
- ❖ More research is also required to investigate long term maintenance of these changes and other sources of referral for participants.



Thank you !