7 WAYS TO CUT DOWN CANCER

- Be smoke free
- Keep a healthy weight
- Be safe in the sun
- Drink less alcohol
- Eat a high fibre diet
- Cut down on processed meat
- Be more active

MAKE A CHANGE TO REDUCE THE RISK OF CANCER

Larger circles indicate more UK cancer cases

Source: Brown et al, British Journal of Cancer, 2018

LET'S BEAT CANCER SOONER
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BEING SMOKE FREE CAN PREVENT 15 TYPES OF CANCER

Larger circles indicate more UK cancer cases

Source: Brown et al, British Journal of Cancer, 2018

LETS BEAT CANCER SOONER

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CANCER RESEARCH UK
OVERWEIGHT AND OBESITY IS THE UK’S BIGGEST CAUSE OF CANCER AFTER SMOKING

- Brain and other central nervous system
- Thyroid
- Oesophagus
- Breast
- Liver
- Stomach
- Kidney
- Gallbladder
- Pancreas
- Bowel
- Ovary
- Uterus
- Myeloma

Larger circles indicate more UK cancer cases

Circle size here is not relative to other infographics based on Brown et al 2018.

Source: Brown et al, British Journal of Cancer, 2018

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Objectives

Using case based discussion to:

• Consider cancers of gynaecological origin
  • Epidemiology
  • Symptoms
  • Causes
  • Protective factors
  • Investigations
  • Screening
  • Hereditary

• Appreciate the role of primary care

My conflicts of interest are found on whopaysthisdoctor.org
‘Doc I’ve got cancer’

- Patsy, aged 47, attends the morning surgery with her friend. She is distressed. She presented with right iliac fossa pain one month ago and was sent for a scan.

- Her ultrasound scan was performed yesterday. She was told she had a ‘swelling in her ovary’.

- The report says she has a right-sided thin walled simple ovarian cyst measuring 25 mm.

- Her aunt had ovarian cancer at the age of 72 and she started with a ‘swelling of her ovary’
Ovarian cancer

Ovarian cancer statistics

Cases: 7,270
New cases of ovarian cancer, 2015, UK

Deaths: 4,128
Deaths from ovarian cancer, 2014, UK

Survival: 35%
Survive ovarian cancer for 10 or more years, 2010-11, England and Wales

Prevention: 21%
Preventable cases of ovarian cancer, UK
Ovarian cancer

https://www.nice.org.uk/Guidance/CG122
<table>
<thead>
<tr>
<th>Ovarian cancer</th>
</tr>
</thead>
<tbody>
<tr>
<td>• 6\textsuperscript{th} most common cancer in women in UK.</td>
</tr>
<tr>
<td>• One in 52 women will be diagnosed with ovarian cancer in their lifetime.</td>
</tr>
<tr>
<td>• 75% diagnosed in women aged 55 and over</td>
</tr>
<tr>
<td>• 7400 new cases diagnosed each year</td>
</tr>
<tr>
<td>• Leading cause of death in women from gynaecological cancer.</td>
</tr>
<tr>
<td>• 4100 women die from ovarian cancer each year</td>
</tr>
<tr>
<td>• 5 year survival below 35%</td>
</tr>
<tr>
<td>• Stage 1 – survival rate 90%</td>
</tr>
<tr>
<td>• Stage 4 – survival rate 10%</td>
</tr>
<tr>
<td>• 49% women diagnosed at stage 3 or 4</td>
</tr>
</tbody>
</table>

## Symptoms of ovarian cancer

- Abdominal distension (bloating)
- Feeling full (early satiety)
- Persistent pelvic or abdominal pain
- Increased urinary urgency/frequency

**Occasional symptoms:**
- Change in bowel habit
- Extreme fatigue
- Unexplained weight loss
- PMB

In any woman ≥50 who has experienced symptoms within last 12 months that suggest irritable bowel syndrome.
<table>
<thead>
<tr>
<th>Risks and causes</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Age – most in post-menopausal women</td>
</tr>
<tr>
<td>- 5-10% are caused by an inherited faulty gene including BRCA1 and BRCA2</td>
</tr>
<tr>
<td>- Previous breast cancer double risk of ovarian cancer (possible faulty gene)</td>
</tr>
<tr>
<td>- Higher BMI in premenopausal women</td>
</tr>
<tr>
<td>- Use of HRT?</td>
</tr>
<tr>
<td>- Endometriosis?</td>
</tr>
</tbody>
</table>
Protective factors

• Where there has been a break in ovulation:
  • CHC at any time, longer use better reduction
  • Multi-parity
  • Breast feeding
The Recognition and Initial Management of Suspected Ovarian Cancer

Woman present to GP

Reports any of the following symptoms persistently if frequently (>12 times/month) especially in women aged > 50:
- Bloating
- Feeling full and/or loss of appetite
- Pelvic or abdominal pain
- Increased urinary frequency and/or urgency
OR
Women aged > 50 with recent onset of IBS symptoms

Measure serum CA 125 when not menstruating

- >100 IU/ml: Suggestive of ovarian cancer
- >35 IU/ml: Arranged urgent abdominal, pelvic and transvaginal USScan

Ovarian cancer suspected?

- Yes: Continue investigation
- No: Consider alternative investigations/manage as appropriate

Consider USscan if symptoms persist even with normal CA125

Fast-track referral 2 week wait
# Ca 125

## Marker of inflammation

<table>
<thead>
<tr>
<th>Gynae causes</th>
<th>Non-gynae causes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Endometriosis</td>
<td>Rheumatoid arthritis</td>
</tr>
<tr>
<td>PID</td>
<td>Chronic liver disease</td>
</tr>
<tr>
<td>Fibroids</td>
<td>SLE</td>
</tr>
<tr>
<td>Menstruation</td>
<td>Renal failure</td>
</tr>
<tr>
<td>Pregnancy</td>
<td></td>
</tr>
</tbody>
</table>

If not raised but ongoing concerns – consider repeating after 8 weeks.
## Do I have a family history?

### BRCA

<table>
<thead>
<tr>
<th>Type of cancer</th>
<th>General population</th>
<th>BRCA1</th>
<th>BRCA2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ovarian cancer</td>
<td>2%</td>
<td>40-60%</td>
<td>10-20%</td>
</tr>
<tr>
<td>Breast cancer in women</td>
<td>11%</td>
<td>60-85%</td>
<td>45-60%</td>
</tr>
<tr>
<td>Breast cancer in men</td>
<td>0.1%</td>
<td>Up to 3%</td>
<td>Up to 12%</td>
</tr>
<tr>
<td>Prostate cancer</td>
<td>12%</td>
<td>Unknown – likely similar to normal population</td>
<td>35-40%</td>
</tr>
<tr>
<td>Pancreatic cancer</td>
<td>1.30%</td>
<td>3-4%</td>
<td>7%</td>
</tr>
</tbody>
</table>

### Lynch syndrome

<table>
<thead>
<tr>
<th>Type of cancer</th>
<th>General population</th>
<th>Lynch syndrome</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ovarian cancer</td>
<td>2%</td>
<td>9-12%</td>
</tr>
<tr>
<td>Colorectal cancer</td>
<td>5.50%</td>
<td>Up to 80%</td>
</tr>
<tr>
<td>Stomach cancer</td>
<td>&lt;1%</td>
<td>11-19%</td>
</tr>
<tr>
<td>Uterus cancer</td>
<td>2.40%</td>
<td>30-60%</td>
</tr>
</tbody>
</table>
Screening programme?

- A screening test has to be sensitive and specific
  - Identifying early stage makes a difference to outcome
  - Sensitive to detect the cancer early
  - Specific enough not to do harm to healthy people

- UK collaborative trial of ovarian cancer screening (UKCTOCS) - Not sensitive or specific enough

- UK Familial Ovarian Cancer Screening Study (UKFOCSS) ongoing to determine whether screening indicated for those with a FH.
Tips for ovarian cancer

• Think ovarian cancer if symptoms of IBS presenting for the first time in women aged > 50

• Ask about FH of ovarian/breast cancer. (BRCA 1 & 2)

• Ca125 and TV scans useful but understand relevance of results.

• Beware recurrent sterile UTI/new presentation of overactive bladder.

• Platelet count > 450 – 40% chance of intra-abdominal cancer – NG12
‘My periods are awful Doc’

- **Bubbles** is a 46 year old woman who works in the local supermarket.

- She has recently started having very heavy periods. It is embarrassing for her at work as she now needs regular breaks to change her pad and has ‘flooded’ a few times when working on the checkout.

- ‘I WANT a hysterectomy’
Endometrial cancer

Uterine cancer statistics

- **Cases**: 8,984 new cases of uterine cancer, 2015, UK
- **Deaths**: 2,166 deaths from uterine cancer, 2014, UK
- **Survival**: 78% survive uterine cancer for 10 or more years, 2010-11, England and Wales
- **Prevention**: 37% preventable cases of uterine cancer, UK
Endometrial cancer

- Endometrial cancer is the 4th most common cancer in women.
- Majority are grade 1/2 endometrioid cancers associated with obesity and oestrogen excess.
- Reducing obesity reduces both incidence of endometrial cancer and mortality rates.
Back to the classroom
Endometrial risk factors

- Increased BMI with excessive peripheral conversion of androgens in adipose tissue to oestrogen
- Anovulation associated with peri-menopause or PCOS
- Oestrogen-secreting ovarian tumours (e.g. granulosa cell tumours)
- Drug-induced endometrial stimulation (systemic ERT or Tamoxifen)
Endometrial hyperplasia

• Develops when oestrogen, unopposed by progesterone, stimulates endometrial cell growth by binding in the nuclei of endometrial cells.

• Classification dependent on presence of cytological atypia:
  • Hyperplasia without atypia
  • Atypical hyperplasia
Endometrial cancer

1.5.10 Refer women using a **suspected cancer pathway referral** (for an appointment within 2 weeks) for endometrial cancer if they are aged 55 and over with post-menopausal bleeding (unexplained vaginal bleeding more than 12 months after menstruation has stopped because of the menopause). [new 2015]

1.5.11 Consider a suspected cancer pathway referral (for an appointment within 2 weeks) for endometrial cancer in women aged under 55 with post-menopausal bleeding. [new 2015]

1.5.12 Consider a **direct access** ultrasound scan to assess for endometrial cancer in women aged 55 and over with:

- unexplained symptoms of vaginal discharge who:
  - are presenting with these symptoms for the first time **or**
  - have thrombocytosis **or**
  - report haematuria, **or**

- visible haematuria **and**:
  - low haemoglobin levels **or**
  - thrombocytosis **or**
  - high blood glucose levels. [new 2015]
Tips for endometrial cancer

• Excess and unopposed oestrogen are risk factors
• PMB requires cervical examination and then fast track referral
• Persistent (non STI) post-menopausal vaginal discharge may be presentation of endometrial cancer
• Understand relevance of US scan results
• Endometrial hyperplasia with no atypia has reversible risk factors
• The LNG-IUS is increasingly being used to manage hyperplasia – even in ‘older’ women
• Endometrial ablation is not an option
• Hysterectomy has risks
‘I’ve got an STI Doc!’

- **Barbara is a 32 year old cleaner who attends clinic.**
- **She has received an appointment to attend the ‘cervical cancer clinic’**
- **She is upset and angry as the letter says she has low grade changes AND she has a sexually transmitted virus which wasn’t there last time…….”
Cervical cancer

In 2014 cervical cancer killed 726 women in England.

There were 2,590 new cases of cervical cancer in England in 2014.

Cervical cancer is the most common cancer among women under the age of 35.

Women under 35 should be aware of the signs and symptoms of cervical cancer and get screened regularly.
Cervical cancer

![Graph showing the average number of cases per year and rate per 100,000 for female cases, labeled 'Female Rates' and 'Female Cases', against age at diagnosis.]
Cytology coverage

- Coverage:
  - 2004 - 80.6%
  - 2014 – 77.8%
  - 2016
    - 63.3% 25-29s
    - 69.5% 25-49s
    - 76.5% 50-64s

- 47% who develop cervical cancer had not attended for their screening within the previous 5 years
Human Papilloma Virus

- HPV is the principle cause of cervical cancer and cervical intra-epithelial neoplasia (CIN)
- There are 12 - 16 high risk types causing CIN and cancer
- > 80% women will be infected with HPV
- Half will become immune within 6 months
- 90% HPV infection resolves within a few years in women.
- High grade pre-cancer change and cancer risk increases in the 5% of women whom HPV infection is persistent
HPV also causes...
PROTECTING AGAINST HPV CAN PREVENT 7 TYPES OF CANCER

Circle size and colour here is not relative to other infographics based on Brown et al 2018
Source: Brown et al, British Journal of Cancer, 2018

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HPV - Immunisation programme

• Gardasil (HPV subtypes 16/18/6 and 11) given to girls in year 8 and 9.
• And MSM in SRH clinics

• Eldest cohort of girls vaccinated now aged 27
  • 85% immunised in year 8 in 2015-16
  • Reduction in high grade disease
  • Since introduction of Gardasil reduced genital warts

• Future
  • Vaccinating boys – year 8
  • Nonovalent vaccine?
  • Single dose??
All change

HPV triage first

Observe some CIN II

Reduction in smear tests required
Cervical screening ...the future

- Dec 2019
- ‘Smear’ tested for high risk HPV first
- If negative no cytological testing
- If positive cytology testing
- Future for vaccinated women ? test at 30, 40 and 55
- For unvaccinated women ? 7 lifetime screens
- Screening up to age 75?

On line cervical screening update training


Cervical Sample Taker Training

This resource has been created for sample takers working in the English cervical screening programme. It will fulfill your three year sample taker training update requirements and help you maintain and improve your knowledge of the cervical screening programme.

This course is adapted from, and updates, the North East, Yorkshire and the Humber (NEYH) Cervical Sample Taker course developed by the Yorkshire and the Humber eLearning Club (Health Education England, working across Yorkshire and the Humber), in collaboration with the NEYH Cancer Screening E-learning QA Review Group (Public Health England).
Cervical cancer tips

• Understand the relevance of HPV infection
• Encourage uptake of HPV immunisations
• Engage entire practice team in encouraging cervical screening

Future:
• HPV tests as primary triage
• Reduced requirement for testing in women who have been immunised.
• Reduction in HPV related cancers
• Reduction in genital warts
Ms DB

- Dot is 63 and works in the local laundrette. She attends surgery complaining of vulval irritation. She was treated 6 weeks ago with clotrimazole by your partner.
Vulval cancer
Breast Cancer Risks - relative

A comparison of lifestyle risk factors versus Hormone Replacement Therapy (HRT) treatment.

Difference in breast cancer incidence per 1,000 women aged 50-59. Approximate number of women developing breast cancer over the next five years.

23 cases of breast cancer diagnosed in the UK general population

An additional four cases in women on combined hormone replacement therapy (HRT)

Four fewer cases in women on oestrogen only Hormone Replacement Therapy (HRT)

An additional four cases in women on combined hormonal contraceptives (the pill)

An additional five cases in women who drink 2 or more units of alcohol per day

Three additional cases in women who are current smokers

An additional 24 cases in women who are overweight or obese (BMI equal or greater than 30)

Seven fewer cases in women who take at least 2½ hours moderate exercise per week
Summary

• Gynae cancers are common.

• Ovarian cancer needs diagnosing earlier.

• Unopposed oestrogen is an ‘endometrial risk factor’.

• Understanding HPV imms programme and triage in the screening programme is important.

• Don’t forget to examine women who complain of persistent itch or vulval lumps.