

## Menstrual Disorders

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MOST PROBLEMS WOMEN  
EXPERIENCE START WITH

???

MOST PROBLEMS WOMEN  
EXPERIENCE START WITH

**MEN**

## MAIN PROBLEMS

- MEN-ARCHE
- MEN-SES
- MEN-ORRHAGIA
- MEN-OPAUSE
- HIS-TERECTOMY
- GUY-NECOLOGY
- HU-MAN PAPILOMA VIRUS

## GYNAECOLOGY

- Abnormal pap smears
- Abnormal Bleeding
- Pain pelvic, vagina, vulva
- Discharge
- Menopause
- Urine incontinence

## GYNAECOLOGY

- Pre cancer cervix
- LLETZ Cone Bx
- Bleeding
  - D&C Hysteroscopy, Mirena, endo ablation,
  - Hysteroscopic resection of fibroid
  - Myomectomy
  - Hysterectomy
- Pain
- Ovarian cyst Adenomyosis Endometriosis

## Abnormal Uterine Bleeding

Traditional nomenclature and causes

## Abnormal Uterine Bleeding

- **DEFINING NORMAL**
- Number of days Cycle
- Number of days bleeding
- How much blood

### Normal Menstrual Cycle

### Abnormal Menstrual Cycle

23 – 35 day Cycle	< 23 days > 35 days >- anovulatory cycles.
blood flow 4-6 days.	>7 days.
Normal menstrual blood loss 30 mls.	>80mls = menorrhagia.
	Regular loss of >80mls ->iron deficiency anemia.

## Abnormal Uterine Bleeding

- **Differential Diagnosis / Causes**
- DUB
- Pelvic
- Pregnancy related
- Generalised Medical Diseases
- Iatrogenic

## ABNORMAL UTERINE BLEEDING

PELVIC CAUSES			
Ovary -benign /malignant			
Functional ovarian tumors			
Uterus - Benign			
Fibroids / Polyps / hyperplasia / Endometritis / adenomyosis			
Uterus - malignant			
Cervical/ - Benign / malignant			
Vagina Vulva - Benign / malignant			

## ABNORMAL UTERINE BLEEDING

PREGNANCY RELATED	
<i>Ectopic pregnancy</i>	
<i>Threat/incomplete missed abortion</i>	
<i>Trophoblastic disease</i>	

## ABNORMAL UTERINE BLEEDING

MEDICAL	
<i>Blood dyscrasias 19% of teenagers</i>	
<i>Thyroid dysfunction</i>	
<i>Hepatic dysfunction</i>	

## ABNORMAL UTERINE BLEEDING

IATROGENIC.	
<i>IUD</i>	
<i>Oral / injectable contraceptives</i>	
<i>Spironolactone</i>	
<i>Rifampicin</i>	
<i>Antiepileptics St John's wart</i>	

## FIGO

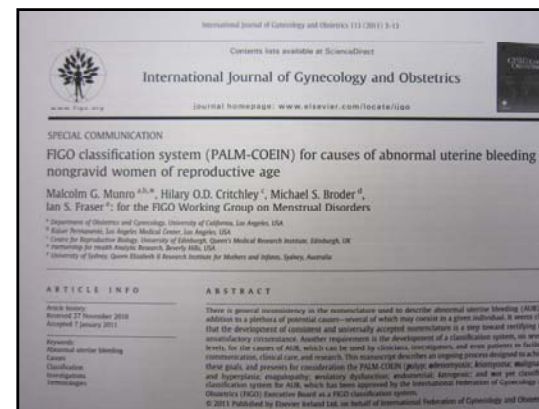
### FIGO 2010 formally accepted

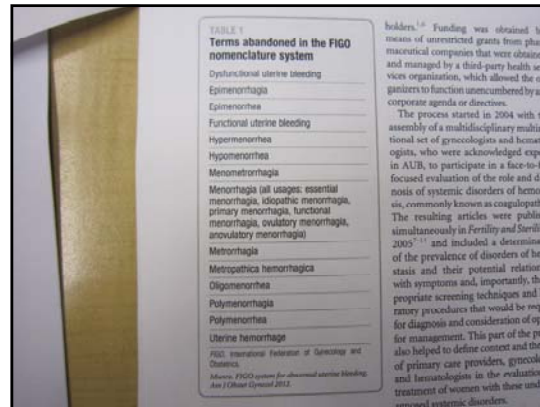
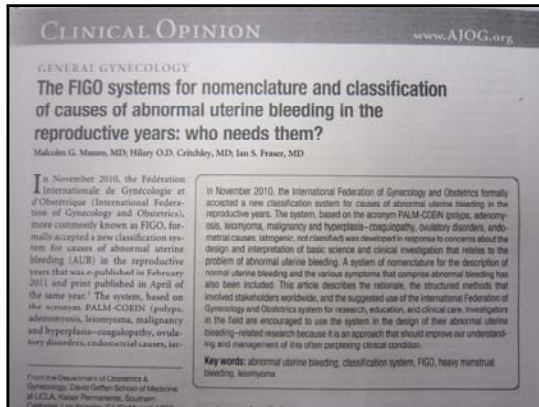
- 1) New system of nomenclature for the description of normal and abnormal uterine bleeding

## FIGO

- And
- 2) new classification system for causes of abnormal uterine bleeding in nongravid women of reproductive age (PALM-COEIN)

- Munro et al. *Int J Obstet Gynecol* 113 (2012) 3–13
- Munro et al. *Am J Obstet Gynecol* 2012 1-7





## Terms abandoned in the FIGO nomenclature system

- Dysfunctional Uterine Bleeding
- Menorrhagia
- Metorrhagia
- Oligomenorrhagia
- Polymenorrhagia
- Polymenorrhea

## FIGO

- Acute Abnormal Uterine Bleeding is now defined as
- “an episode of bleeding in a woman of reproductive age, who is not pregnant, that, in the opinion of the provider, is of sufficient quantity to require immediate intervention to prevent further blood loss”

## FIGO

- Chronic Abnormal Uterine Bleeding is
- “bleeding from the uterine corpus that is abnormal in duration, volume and / or frequency and has been present for the majority of the last 6 months”

## FIGO -Nomenclature

- Defining Normal
- Frequency, Regularity, Duration, Volume
- Normal based on statistics that were derived from large population studies that used medians and 5<sup>th</sup> and 95<sup>th</sup> percentiles

TABLE 2  
Suggested "normal" limits for menstrual parameters in the mid-reproductive years

Clinical dimensions of menstruation and menstrual cycle	Descriptive term	Normal limits (5th-95th percentiles)
Frequency of menses, d	Frequent	<24
	Normal	24-38
	Infrequent	>38
Regularity of menses: cycle-to-cycle variation over 12 months, d	Absent	No bleeding
	Regular	Variation $\pm$ 2-20
	Irregular	Variation >20
Duration of flow, d	Prolonged	>8.0
	Normal	4.5-8.0
	Shortened	<4.5
	Volume of monthly blood loss, mL	Heavy
	Normal	5-80
	Light	<5

Source: FIGO system for abnormal uterine bleeding. Am J Obstet Gynecol 2012.

## FIGO

- "... may require that the definitions of normal be reconsidered in future versions of the terminology and classification"

## FIGO -Definitions

- Heavy Menstrual Bleeding – Clinical definition
- "Excessive menstrual blood loss which interferes with a woman's physical, social, emotional and /or material quality of life"

## FIGO

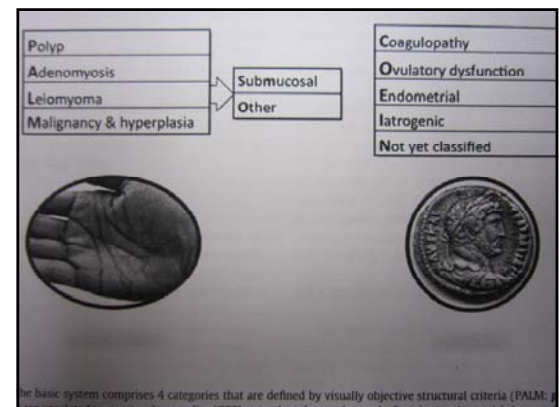
Heavy Menstrual Bleeding- research definition

Is defined more objectively with the measurement of actual blood loss per menstrual period, generally with the extraction of haemoglobin from menstrual products which includes pads and tampons

## Abnormal Uterine Bleeding

### FIGO 2010

- The classification system is stratified into
- 9 basic categories that are arranged according
- to the acronym PALM-COEIN
- (*palm-koin*): polyp; adenomyosis; leiomyoma;
- malignancy and hyperplasia;
- coagulopathy; ovulatory disorders; endometrium;
- iatrogenic; and not classified



## Patients

### Made up patients

Mrs Olive Other 35yo 3 children  
Mrs Vera Vasectomy 40yo 3 children husband vasectomy

### Real patients

Mrs G 49 yo heavy irregular bleeding  
Mrs F Age 47yo heavy periods ferinject  
Mrs v post menopausal bleeding  
Ms M post menopausal bleeding  
Ms T premature ovarian insufficiency

## Abnormal Uterine Bleeding

- Two Examples
- Mrs Olive Other – 35yo 3 children – not sure if wants more children
- Mrs Vera Vasectomy - 40yo 3 children husband vasectomy

## Abnormal Uterine Bleeding

- History
- Examination
- Differential Diagnosis
- Investigations
- Management

## Heavy menstrual bleeding

- **Presenting History**
  - Periods have become heavier over 12 months
  - Bleeds for 9 – 10 days.
  - Heaviest for first 1-2 days
  - changes super tampon every hour.

## Heavy menstrual bleeding

- **Presenting History**
  - large clots and floods- doing so right now!!
  - Cycle 24- 28 days.
  - looks pale and tired
  - No intermenstrual bleeding
  - Dysmenorrhoea only when passing clots

## Heavy menstrual bleeding

- **Presenting History**
  - Sexually active
  - No PCB No dyspareunia
  - Contraception
  - Mrs Olivia Other is using withdrawal
  - Mrs Vera Vasectomy husband vasectomy
  - No urinary / bowel symptoms

## Heavy menstrual bleeding

### • Further History

- G3 P 3 All normal vaginal deliveries
- No previous operations
- No serious medical illnesses
- Last Pap smear – 3 years ago

## Heavy menstrual bleeding

### • Further History

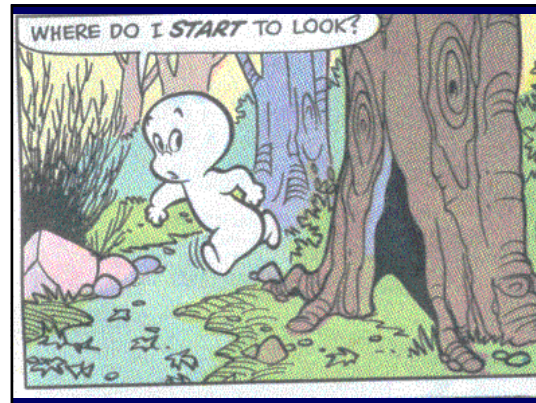
- Cigarettes – nil
- Alcohol – nil
- Recreational drugs – nil

## Heavy menstrual bleeding

- Examination
- BP 120/80 P 72
- Thyroid not enlarged
- Abdo non tender
- Spec blood no POC
- VE NS AV uterus  
not tender no masses

## Abnormal Uterine Bleeding

### Investigations



## Heavy menstrual bleeding

- Investigations
- B HCG
- Pap
- FBE, iron studies
- TFT
- LFT, clotting profile
- Pelvic US

## Treatment

### • ACUTE BLEEDING

- Oral norethisterone
- Oral medroxy prog acetate
- Ethinyl oestradiol
- Conjugated oestrogens IV  
Premarin

## excessively heavy period

Primolute N = norethisterone  
5mg tablets  
– 2 tablets 2 hourly for up to 40 mg total  
– Then 5 days 2 tablets tds  
– Then 2 tablets bd till next period

## Treatment

- Oral progesterone
- Primolut N
- This patient US normal
- Then D&C hysteroscopy  
+/- polypectomy

## Abnormal Uterine Bleeding

Discussed the differential diagnosis and treatment options including:

- I) Hysteroscopy D&C  
+/- polypectomy  
+/- Hysteroscopic resection of fibroids
  - 1) conservative management
  - 2) ponstan tablets - or cyklokapron
  - 3) Oral Contraceptive Pill or progesterone alone
  - 4) Mirena Progesterone releasing IUD
  - 5) Endometrial Ablation

## Abnormal Uterine Bleeding

- II) Hysterectomy
- III) Myomectomy
- IV) Ovarian cystectomy or oophorectomy

## Perimenopause

- Beware !!!!!!!!!!!!!

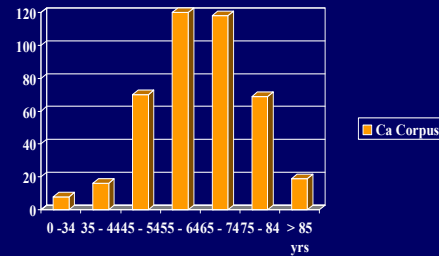


## ENDOMETRIAL CANCER

Australia 1,000 new cases / year  
200 deaths / year

USA 37,000 new cases / year  
6,400 deaths / year

## Ca Corpus - Incidence by Age



## Abnormal Uterine Bleeding

### CHRONIC

Non hormonal  
Tranexamic Acid -Anti fibrinolytic agents  
NSAID - Cyclo-oxygenase inhibitors  
Haemostatic agents

\*\*ponstan 250mg 2 o tds

## Abnormal Uterine Bleeding

### CHRONIC

#### Oral Hormones

OCP – brevinor, brevinor 1  
-Qlaira, Zoely, Slinda

#### Progesterone

MPA (provera)  
NORETHISTERONE (primolut N)  
DIENOGEST (visanne)

## Newer OCP

#### Qlaira

Oestradiol valerate (1-3MG)  
» Dienogest (2-3)

#### Zoely

-Oestradiol valerate (1.5mg)  
-Nomegestrol acetate (2.5mg)

#### Slinda

Drospirenone (4mg)

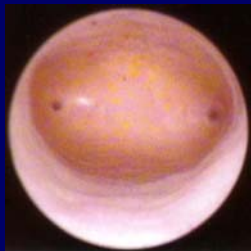
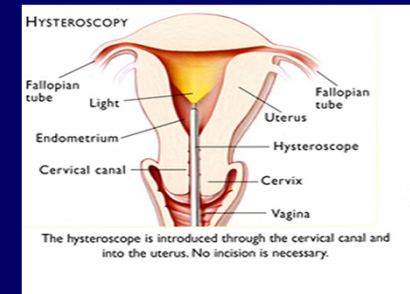
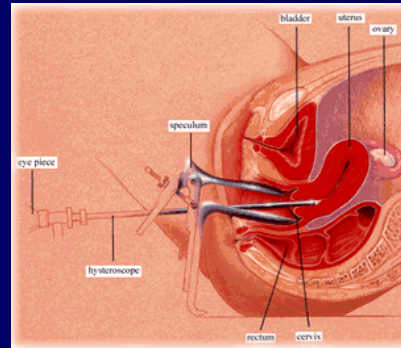
## Abnormal Uterine Bleeding

### CHRONIC -Surgical

- polypectomy
- Myomectomy
- Mirena
- Ablation roll a ball diathermy
- thermal
- microwave
- radio frequency impedance
- Hysterectomy

## Abnormal Uterine Bleeding

- Discussed the differential diagnosis and treatment options including:
  - 1) conservative management
  - 2) ponstan tablets - or cyklokapron
  - 3) Oral Contraceptive Pill or progesterone alone
  - 4) Hysteroscopic resection of fibroids
  - 5) Mirena Progesterone releasing IUD
  - 6) Endometrial Ablation
  - 7) Myomectomy
  - 8) Hysterectomy



**Endometrial hyperplasia  
photos**

**Endometrial cancer  
photos**

## Abnormal Uterine Bleeding

### Polypectomy

photos

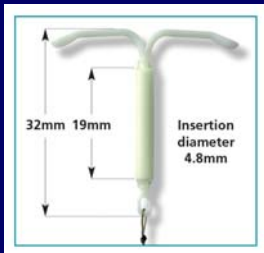
## Abnormal Uterine Bleeding

### Hysteroscopic resection of Fibroids

(photos)



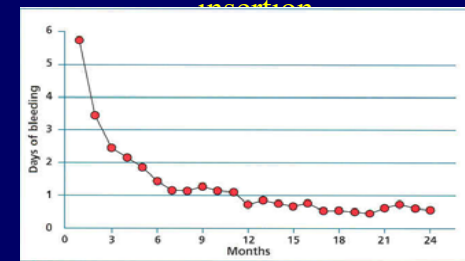
## Mirena Composition



## Mirena Intrauterine System



## Number of bleeding days after insertion



## Hormonal Tolerance -

Cumulative 5 Year Gross Termination Rates for Hormonal Reasons (n=1821)<sup>2</sup>

	%
Depression	2.9
Acne	2.3
Headache	1.9
Weight Change	1.5
Breast Tenderness	0.8
Nausea	0.8
Hirsutism	0.7
Other Skin Problems	0.5
Other Mood Changes	1.5

Anderson et al 1994

## Summary

- Approved indications:
  1. Contraception (PBS)
  2. Menorrhagia (PBS)
  3. HRT (Opposes oestrogen)

## Summary

- For consideration
  - Dysmenorrhoea
  - Fibroids
  - Adenomyosis
  - Endometriosis
  - Hyperplasia without atypia
  -

## Abnormal Uterine Bleeding

- Mirena

### • Ablation

- Myomectomy
- Hysterectomy

## Endometrial Ablation

- Roller ball
- Thermachoice balloon
- Microwave
- Novasure

## ThermaChoice™ Uterine Balloon Therapy

*The new therapy of choice for the treatment of menorrhagia due to benign causes*

Safe, Effective, And Easy To Use

## “Safe, Effective and Easy To Use”



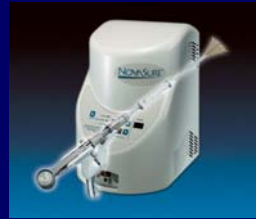
**Step 1. Insertion and Inflation** – the balloon catheter is inserted vaginally through the cervix into the uterus. Inflation occurs when the balloon is filled with 5% dextrose and the pressure reaches 160-180mmHG.

**Step 2. Treatment and Monitoring** – a heating element inside the balloon raises the temperature to 87°C and is maintained for 8 minutes during the therapy cycle. The smart controller continuously monitors and displays the catheter pressure, regulates fluid temp and controls therapy time.

**Step 3. Deflation and Removal** – when the controller signals the treatment is complete, the balloon is deflated and the catheter is withdrawn and discarded.

Safe, Effective, And Easy To Use

## NovaSure™ System



Ablation Device

RF Controller

## NovaSure™ System Highlights

- Bipolar Energy
- Cavity Integrity Assessment System

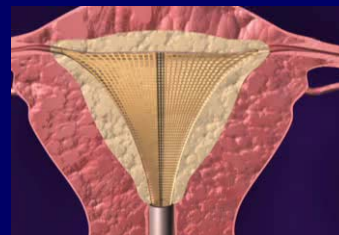
## Novasure

Uterus cavity <12cm

Fibroids <3cm

Needs PERMANENT contraception

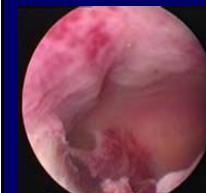
## NovaSure Procedure



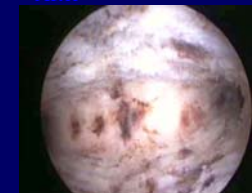
Device Closure & Removal

## Hysteroscopic View of the Uterine Cavity After 85 Second Treatment

Before



After



## NovaSure Ablation Profile



Myometrial Penetration:  
• Cornua - 2-3 mm  
• Mid-Body - 5-7 mm



Consistent Depths of Tissue Destruction  
Across Varied Uterine Sizes  
(post-ablation specimen)

## Overview of endometrial ablation

- Stops or reduces menstrual flow in the majority of patients<sup>1</sup>
  - Bleeding is reduced to normal levels or lower in 91% of patients\*<sup>2</sup>
  - Bleeding is completely stopped in ~50% of women\*<sup>3</sup>

\*Data are for endometrial ablation by radiofrequency electrosurgery.

1. American College of Obstetricians and Gynecologists (ACOG). Frequently Asked Questions: Endometrial Ablation. Available at: [www.acog.org](http://www.acog.org); media File#2010PatientInfo134.pdf. Accessed May 2017. 2. Cooper J et al. *J Am Gynecol Laparosc*. 2002;9:410-28. 3. Severino M Global Library of Women's Medicines, (ISSN: 1756-2228) 2011; DOI 10.3843/GLWOM.10294.

## Abnormal Uterine Bleeding

- Mrs Olive Other – 35yo 3 children – not sure if wants more children or even says she does not want more children!!
- Mrs Vera Vasectomy - 40yo 3 children husband vasectomy

## Abnormal Uterine Bleeding

- ??? May consider mirena or ablation

## PHOTOS

Myomectomy

Hysterectomy

Vaginal

Laparoscopic Hysterectomy

Total Abdominal Hysterectomy

## Pelvic PAIN

PMS

OVARIAN CYSTS

ADENOMYOSIS

ENDOMETRIOSIS

## Bleeding and Pain

### \*\* bleeding and pain !!

- Mrs Olive Other – 35yo 3 children – not sure if wants more children or even says she does not want more children!!
- Mrs Vera Vasectomy - 40yo 3 children husband vasectomy

## Heavy bleeding and pain

Discussed the differential diagnosis and treatment options including

I) Hysteroscopy, Dilatation and Curettage then

- 1) conservative management
- 2) ponstan tablets or cyklokapron
- 3) Oral Contraceptive Pill or prog only (visanne)
- 4) Depo provera (max 2 years)
- 5) Mirena Progesterone releasing IUD
- 6) Endometrial Ablation (help bleeding unlikely to help pain)

## Heavy bleeding and pain

- or II) Undertake a laparoscopy +/- excise endometriosis and Hysteroscopy D&C+ then ocp or mirena
- or III) Hysterectomy +/- excision of endometriosis with conservation of ovaries

## Patients

### Made up patients

- Mrs Olive Other 35yo 3 children
- Mrs Vera Vasectomy 40yo 3 children husband vasectomy

Real patients

## Patients

My patients over 20 years

- Ms A pcb
- Ms C pcb
- Ms B and W pcb
- Mrs T Bangkok
- Mrs G 49 yo heavy irregular bleeding
- Mrs F Age 47yo heavy periods ferinject
- Mrs v post menopausal bleeding
- Ms M post menopausal bleeding
- Ms T premature ovarian insufficiency

Houston we have a problem



### My Pearls

- Be careful of post coital bleeding and unable to do cervical screening
- Abnormal menstrual bleeding don't forget  
Pregnancy  
Endometrial cancer
- Primolut N is our favourite drug

### My Pearls

- Post menopausal bleeding is abnormal till proven otherwise
- Don't let your patients become Victims Of Medical Imaging Technology (VOMIT)
- 

### Pearls

Never say never in Medicine

### Gabrielle Casper

I am passionate about  
Colposcopy  
Abnormal bleeding  
hysteroscopy D&c  
polyp, fibroid, mirena, ablation  
Day surgery

