

Heavy menstrual bleeding (HMB):Can a scoring system predict the likelihood of hysterectomy?

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Introduction:
Common condition ,amounts for 20%referrals to general gynecology outpatients in the UK.
FIGO defines it as ‘Women’s perspective of increased menstrual volume ,regardless of the regularity, frequency or duration.
PALM-COIN coined by FIGO to classify various causes of HMB.
NICE has clear guidance of conditions which require referral to specialist centers for consideration of hysterectomy .
But still women may continue to suffer with HMB for few years before an option of hysterectomy is offered to them .

SMART objectives and motivation

Specific :Can we reduce the waiting time women with HMB spend while waiting for hysterectomy ?
Measurable :Can a scoring system help us to streamline the women with HMB ‘s pathway for most suitable treatment options (we focus on hysterectomy here)?
Achievable: Can we look into the previous records of women who ended up with hysterectomy?
Relevant :Will this help save NHS resources and funds especially in the Post COVID climate where the waiting queues are huge?
Time bound: Can we look into the last 5 years records to gather information.

Initiation:

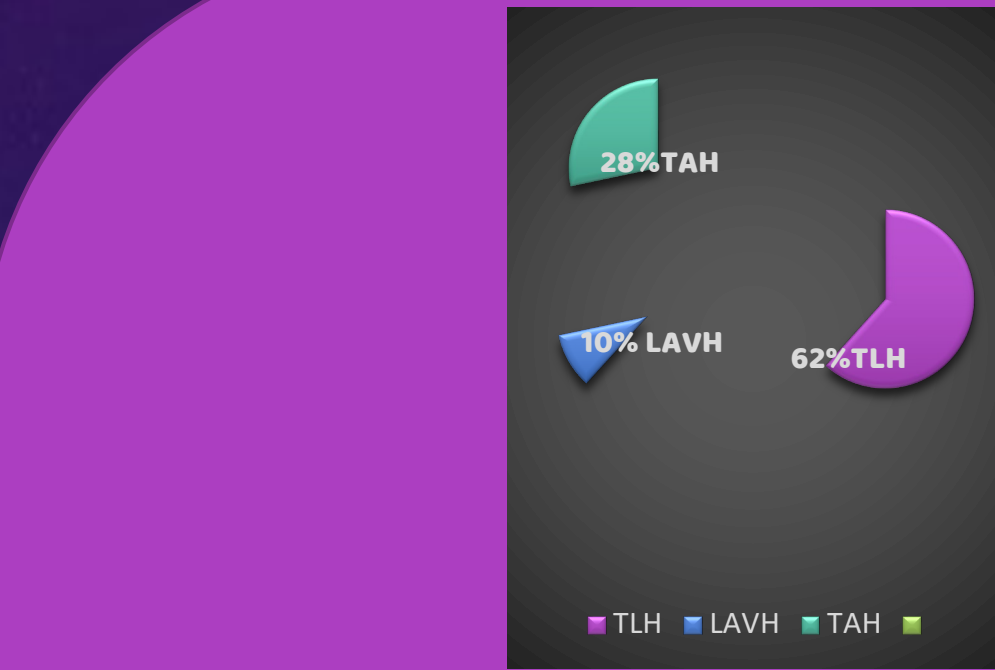
Goals :To identify women referred with HMB and ended up with Hysterectomy in last 5 years between Jan 2016-December 2020 at our trust .To identify the various reasons for hysterectomy and to corelate their preop scan findings with post op histology .
Priorities :To Identify women <58 years of age and excluded the ones who were known to have cancer ,prolapse , PMB ,pelvic masses.
Deadlines :To complete the data compilation and analysis following that .
Risks: Huge number of cases to be reviewed and a lot of information to be analyzed .

Planning :

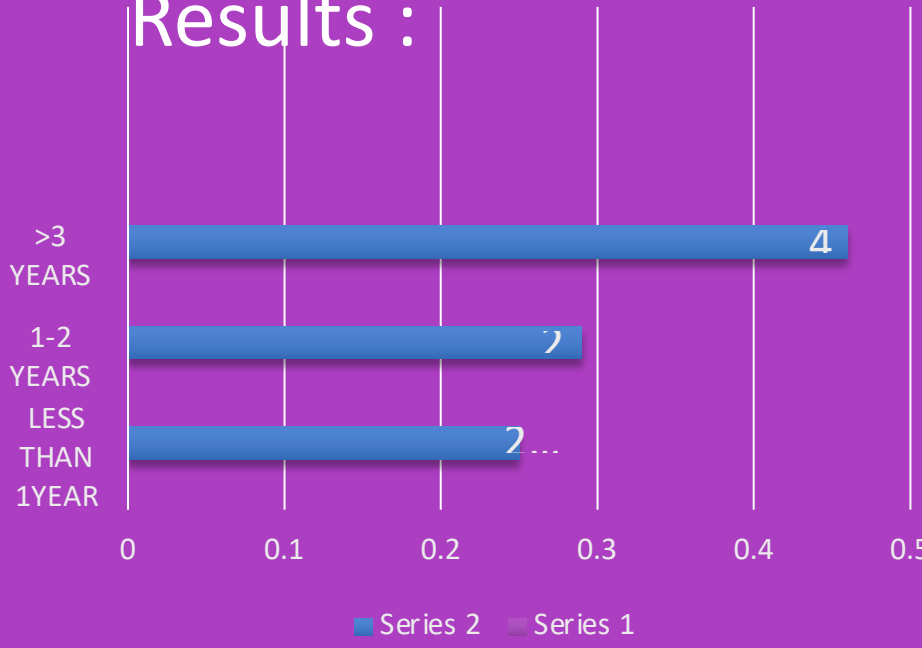
Retrospective study
Identify the women who had hysterectomy in the above mentioned period within the inclusion criteria
Proforma created
Cases distributed within the team

Execution:

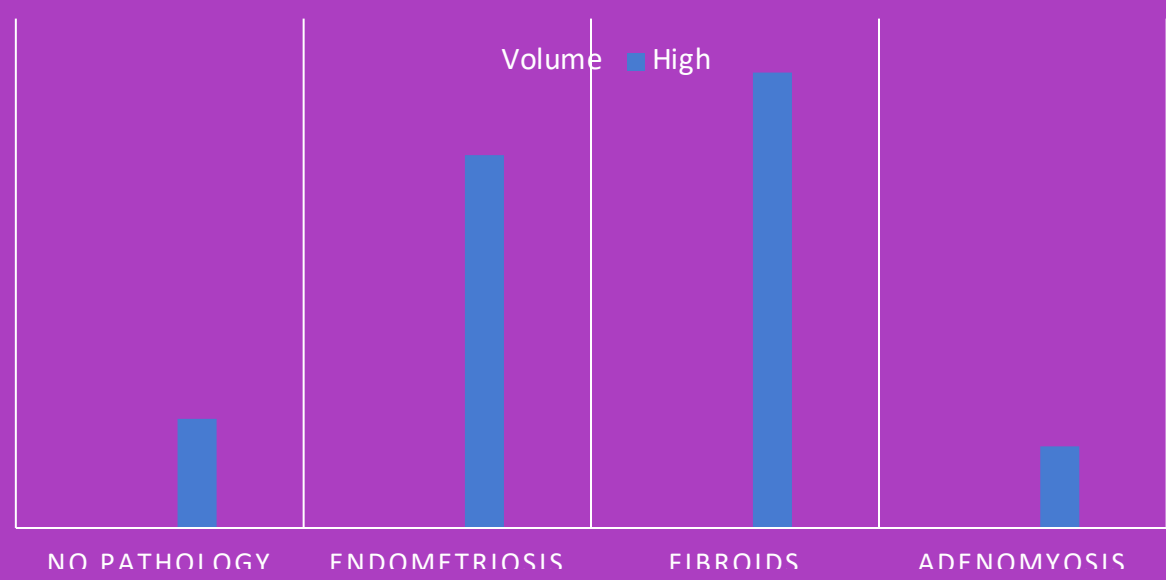
Total of 300 women identified which met our criteria
Data collected on the HMB proforma
Results analyzed by simple statistical tools
Regular meetings virtual / in person to monitor the progress and to address any road blocks.



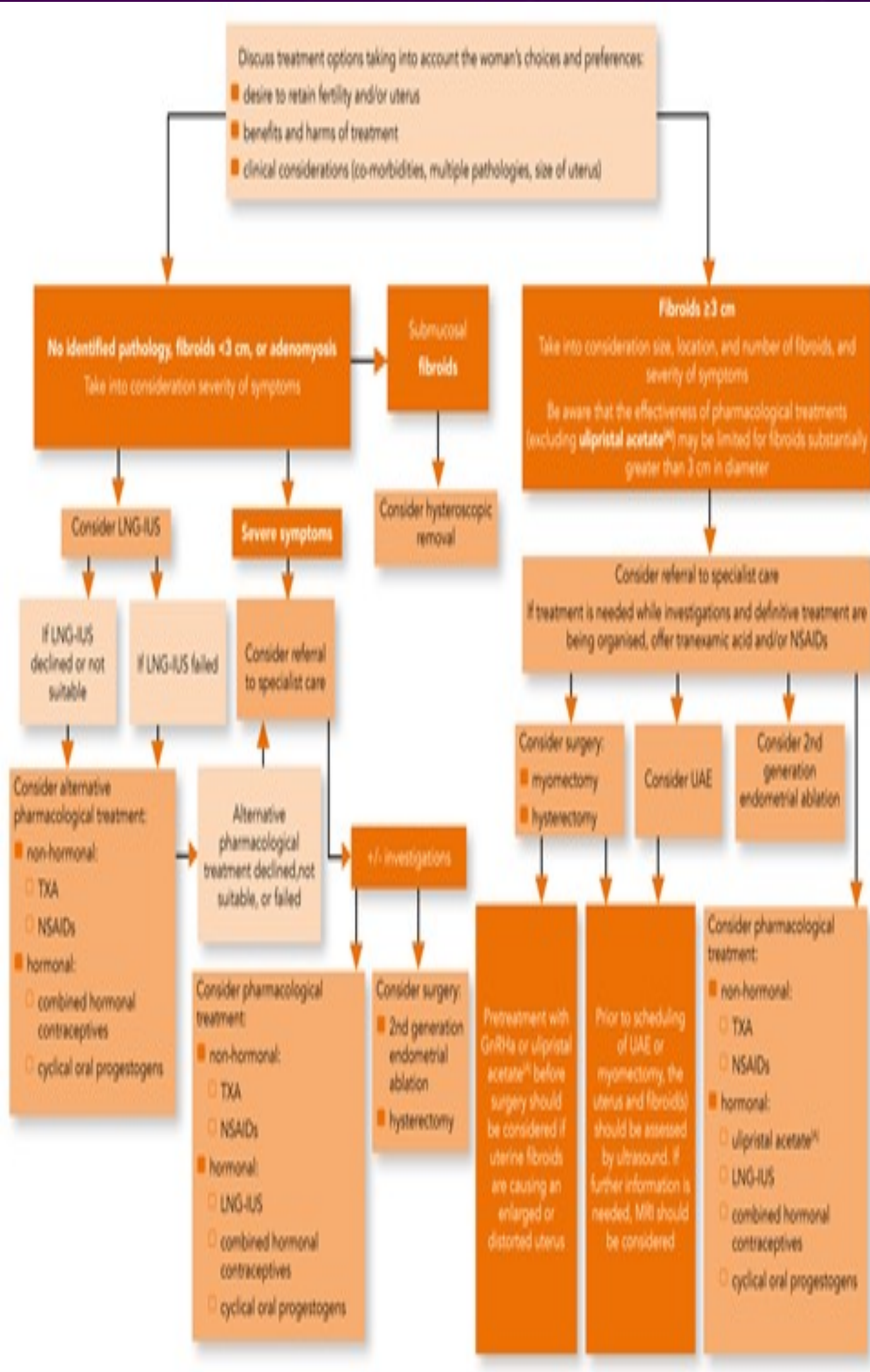
Closure : Results :



NUMBER OF YEARS WITH HMB.



PATHOLOGY NOTED ON USS



GnRH=gonadotrophin-releasing hormone analogue; LNG-IUS=levonorgestrel-releasing intrauterine system; NSAIDs=non-steroidal anti-inflammatory drugs; TXA=tranexamic acid; UAE=uterine artery embolisation.
[A] Ulipristal acetate is indicated for one course up to 3 months of preoperative treatment for moderate to severe symptoms of uterine fibroids and for intermittent treatment up to four courses of moderate to severe symptoms of uterine fibroids in women ineligible for surgery. See also the summary of product characteristics.

Description	p-value	Source		
Background mortality rate	0.00015	Life tables133		
Proportion of symptomatic women (post initial ablation) who have a repeat ablation	0.4	Cooper,200128		
Proportion of symptomatic women (post initial ablation) who have a hysterectomy	0.6	Cooper,200128		
	First-generation techniquesa	Second-generation techniques		
	p-value	p-value		
	Source	Source		
Operative complications	0.0445	Overton,199747	0.0028	Parkin, 2000134
Severe postoperative complications	0.0292	Overton,199747	0.0007	Parkin, 2000134
Death after operation	0.0002	Overton,199747	0	Parkin, 2000134
Severe complications following well	Fit by calibration to IPD meta-analysis		Fit by calibration to IPD meta-analysis	
Symptomatic following well	Fit by calibration to IPD meta-analysis		Fit by calibration to IPD meta-analysis	
Symptomatic following operative	Fit by calibration to IPD meta-analysis		Fit by calibration to IPD meta-analysis	
	LNG IUS	Hysterectomyb		
	p-value	p-value	Source	Source
Operative complications	-	-	0.0358	Marsh, 20025
Severe postoperative complications	-	-	0.0102	Marsh, 20025
Death after operation	-	-	0.0003	Marsh, 20025
Proportion of women with LNG IUS in situ - year 1	0.6806c	Hurskainen, 200193	-	-
Proportion of women with LNG IUS in situ - years 2-5	0.7037c	Hurskainen, 200427	-	-
Insertion failure rate	0.0168	Hurskainen, 200427	-	-
Complication and mortality rates after repeat ablation (RB) were double those after initial ablation (MacLean-Fraser et al148 and professional estimate).				
Complication and mortality rates were adjusted for DUB population only.				
Original values as reported in the papers are presented. Failure per month in year 1 and years 2-5 were calculated.				

Key learnings from the study:

- The majority of the histology suggested benign leiomyomas, adenomyosis or both in the hysterectomy specimens.
- The average time since start of the symptoms to definitive treatment was 26 months.
- GnRH analogues and ulipristal were used in only 18 patients before surgery.
- 11 women suffered operative complications which included 3 bladder injuries ,1ureteric injury,2VV fistula and 4 wound infections
- More than 60 percent of women had tried MIRENA IUS or ablation before opting for hysterectomy.
- Ultrasound was good in picking up fibroids but not so sensitive in diagnosis of adenomyosis ,thus highlighting clinical judgement .

Recommendations :

Could we devise a scoring system based on the presenting complaints and scan findings which will help us triage these women with HMB so that it could reduce their sufferings and also helps NHS reduce its waiting lists POST COVID ?

We suggest that the scoring system could include following criteria :

1. Presence of longstanding h/o CPP, dyspareunia ,adenomyosis ,endometriosis=1 score
2. Scan evidence of a fibroid >3cm = 1 score
3. Large uterine cavity >10 cm size = 2score
4. Persistent anemia requiring blood /iron transfusion =1 score
5. Wishes complete amenorrhea =1 score

If the score averages >3 , then has more chances of needing hysterectomy . Of course we have to look into various other factors for suitability of a major surgical procedure like BMI, previous surgeries and other co – morbidities. This scoring system needs to be validated by RCTs and further research .This approach will increase the overall cost effectiveness and efficiency of NHS and also reduce the number of years that women have to wait until definitive management is offered to them

The cost-effectiveness analysis by a NIHR study had identified the strategy of opting for hysterectomy as the most cost-effective one. Hysterectomy is both cheaper as well as more effective than first-generation EA. In comparison with second-generation EA and Mirena, hysterectomy costs more but produces more QALYs. The ICER for hysterectomy is £1440 per additional QALY compared with Mirena and £970 per additional QALY compared with second-generation EA. These results suggest that hysterectomy would be considered the most cost-effective strategy in light of the acceptable thresholds used by NICE, which tends to accept new technologies if the ICER is within £20,000 per additional QALY.

References :

Nice guidelines
FIGO guidelines
HEALTH trial
ECLIPSE trial