

Stapled haemorrhoidectomy (PPH) audit

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What are piles?



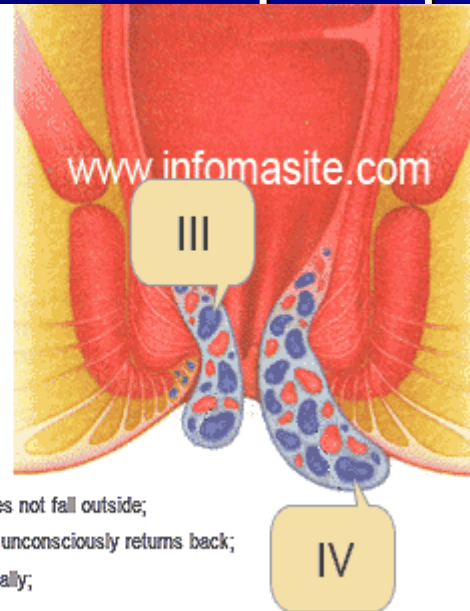
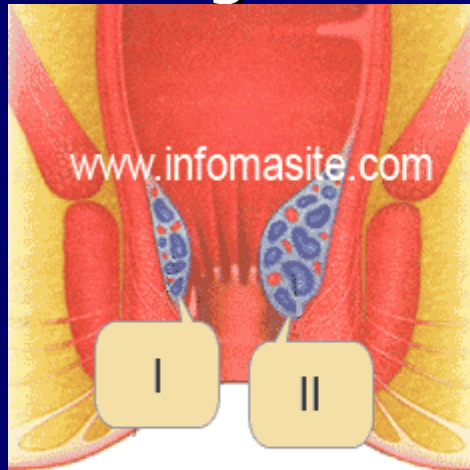
Sitting on cold or damp surfaces will not give you piles

Pile anatomy

- Internal piles – derived from anal cushions
- Anal cushions
 - normal structures found in the anal canal consisting of mucosa, submucosal fibroelastic connective tissue and smooth muscle on an arteriovenous channel system
 - contribute fine control over continence
 - Piles develop when the supporting submucosal fibres of the anal cushions fragment**
 - thus the cushions engorge excessively with blood resulting in bleeding and prolapse**
- External piles – dilated vascular plexuses located below the dentate line covered by squamous epithelium

Grading of haemorrhoids

- First degree – remain inside
- Second degree – prolapse but spontaneously reduce
- Third degree – prolapse and require manual reduction
- Fourth degree – irreducible prolapse



I - hemorrhoid nodes stick to the canal of anus, however, it does not fall outside;
II - hemorrhoid nodes fall outside while evacuating, however, it unconsciously returns back;
III - fallen hemorrhoid nodes can be returned to the place manually;
IV - hemorrhoid nodes fall fully and did not return to the anus.



Demographics

- 4.4 % to 24.5 % UK population affected
- 23,000 haemorrhoidal procedures carried out in England, 2004-5
- 8,000 of these were excisional interventions

Piles: not just a 21st century problem

- The Egyptians: a “disease of thy bowels, until thy bowels fall out”
- Ancient Babylons paid “five sheckels of silver” to a doctor to have them removed.
- Byzantine physicians used threads to ligate the base

The Greek way

- Hippocrates description:

- *"Having placed the man over two round stones upon his knees, examine, for you will find the parts near the anus inflated and blood proceeding from within, bring it away with the finger, for there is no more difficulty in this than in skinning a sheep".*

- Hippocrates solution:

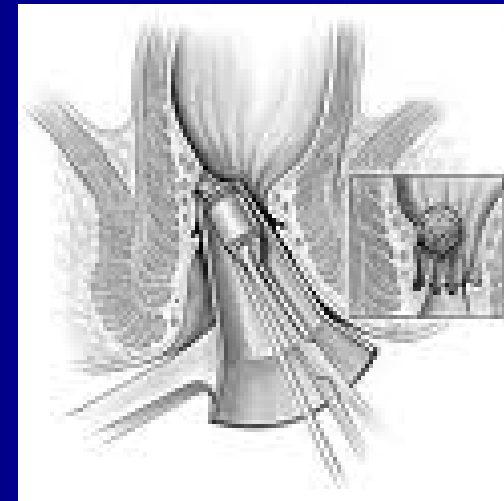
- *Force out the anus as much as possible with the fingers and make the irons red-hot and burn the pile until it dries up. [...] When the iron is applied, the patient's head and hands should be held so he may not stir, but he himself should cry out, for this will make the rectum project more".*

St Fiacre: patron saint of haemorrhoids

- Told by his church that he could farm on all of the land that he could cultivate in a single day with a very small shovel
- In doing so he developed haemorrhoids
- He sat on a stone and prayed for miraculous relief. When he stood up he found that his problem was cured and the image of his haemorrhoids was imprinted on the stone.

Haemorrhoid treatment options today

- Depends upon grade **and patient's symptoms**
- G1: first line = stool softening
O/P procedures
- G2/3: O/P procedures
 - Rubber band ligation
 - Injection sclerotherapy
- G2/3/4: O/P procedures
Surgical procedures
 - open haemorrhoidectomy
 - HALO
 - PPH/stapled haemorrhoidectomy



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'HE MAY BE UNORTHODOX BUT HE'S A
BRILLIANT HAEMORRHOIDS MAN.'

Stapled haemorrhoidectomy=

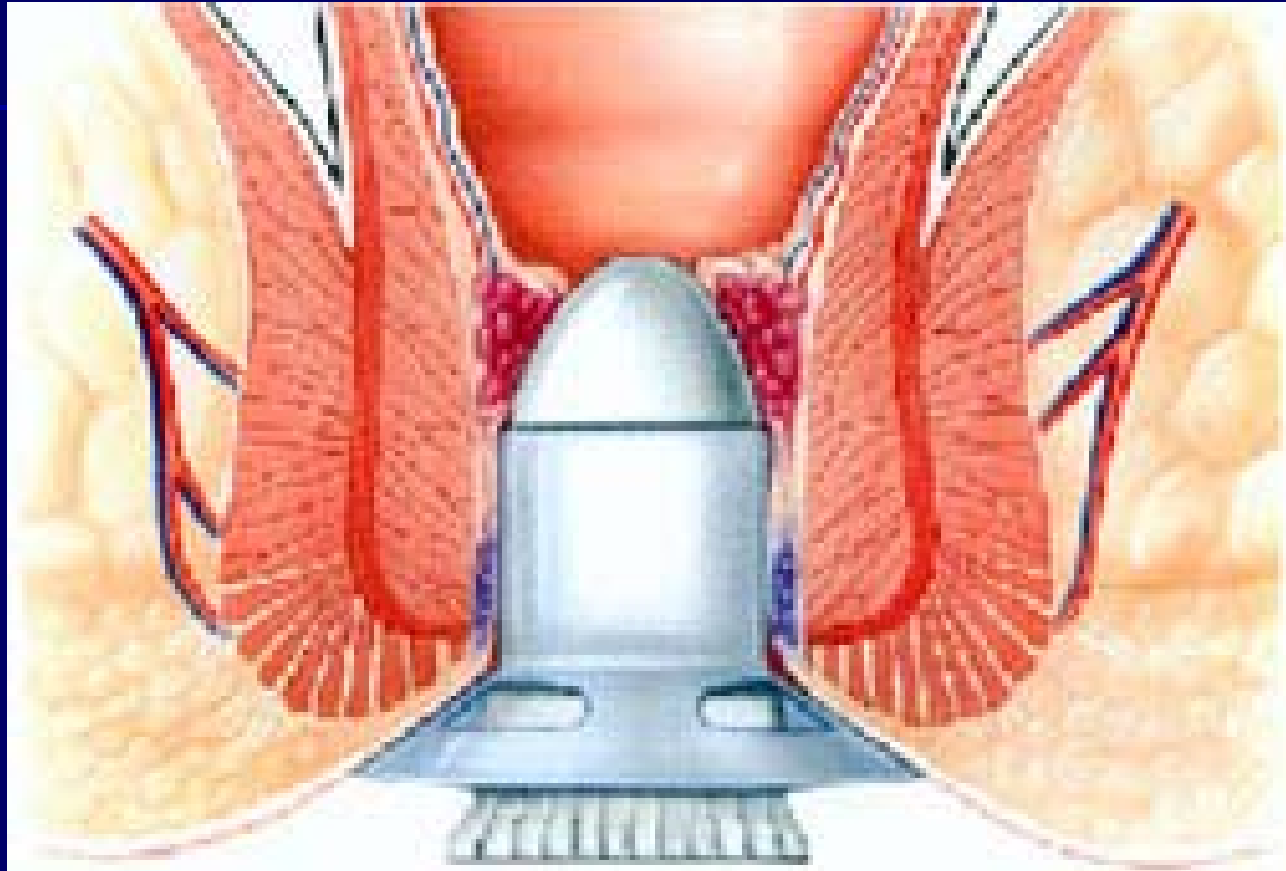
- PPH [procedure for prolapsed haemorrhoids]
- Stapled haemorrhoidopexy
- Stapled anopexy
- Stapled prolapsectomy
- Stapled mucosectomy

Equipment

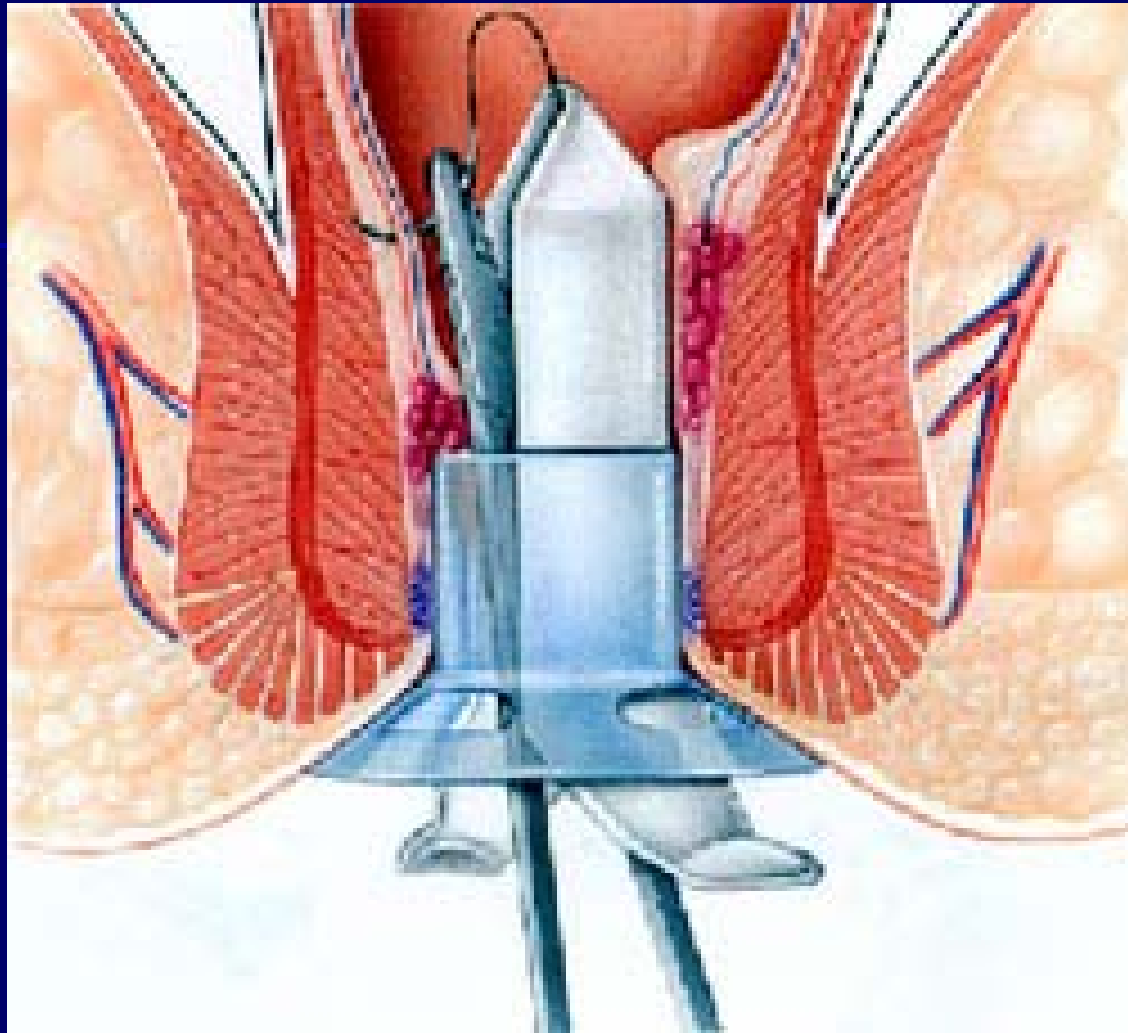
- Circular stapling device
- Ethicon Endo-Surgery HCS33
 - Model PPH03 (previously PPH01)
- Cost ~ £420

How it works

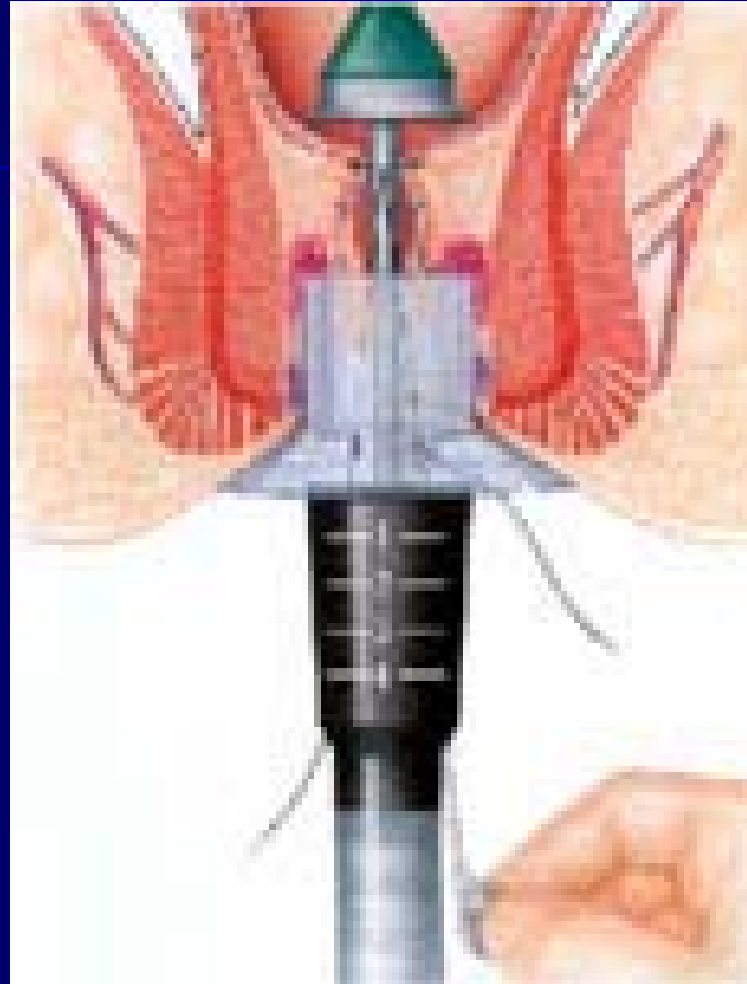
- Reduces the prolapse of pile tissue by excising a circumferential band of the prolapsed anal mucosa membrane ABOVE the dentate line, using the circular stapling device.
- Interrupts blood supply to piles and reduces the potential for available rectal mucosa to prolapse.
- “Pexy” because the pile tissue is not excised as in conventional haemorrhoidectomy (hoists it back up)



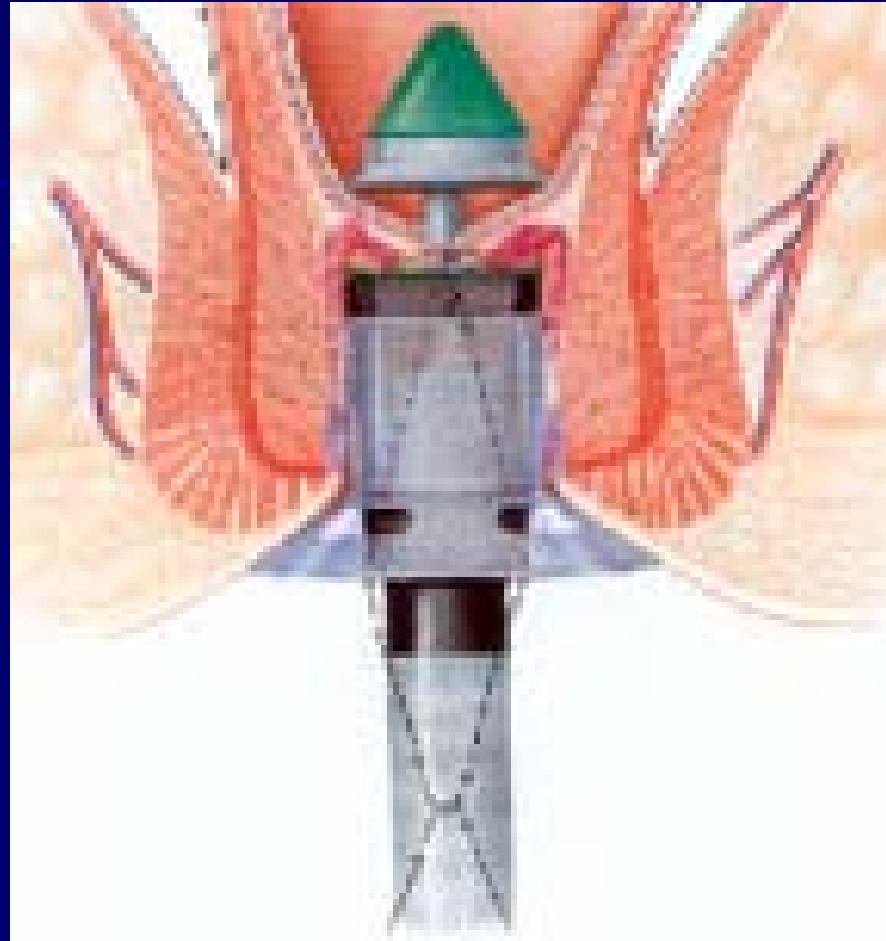
Anal dilator and obturator reduce the prolapse, the anoderm and part of the rectal mucosa, then obturator is removed



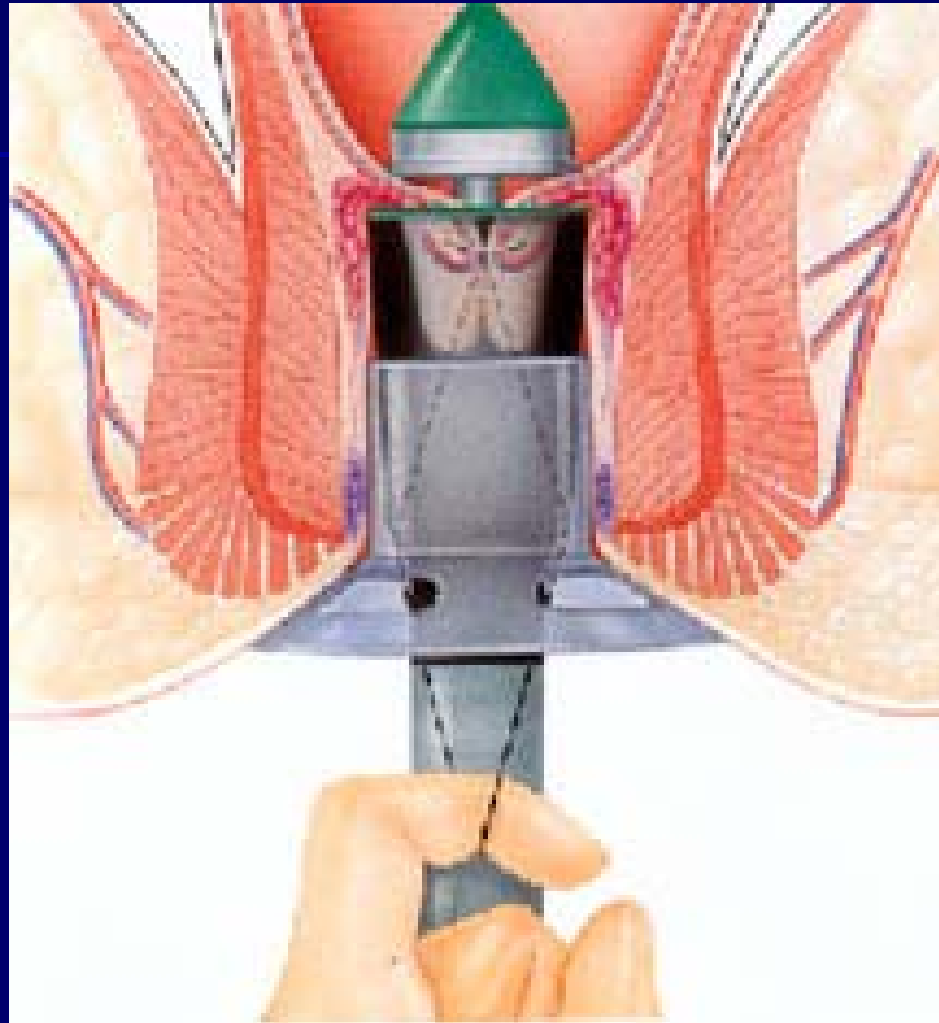
Anoscope inserted enabling circumferential mucosal suture to be sited 2-3 cm above apex of pile



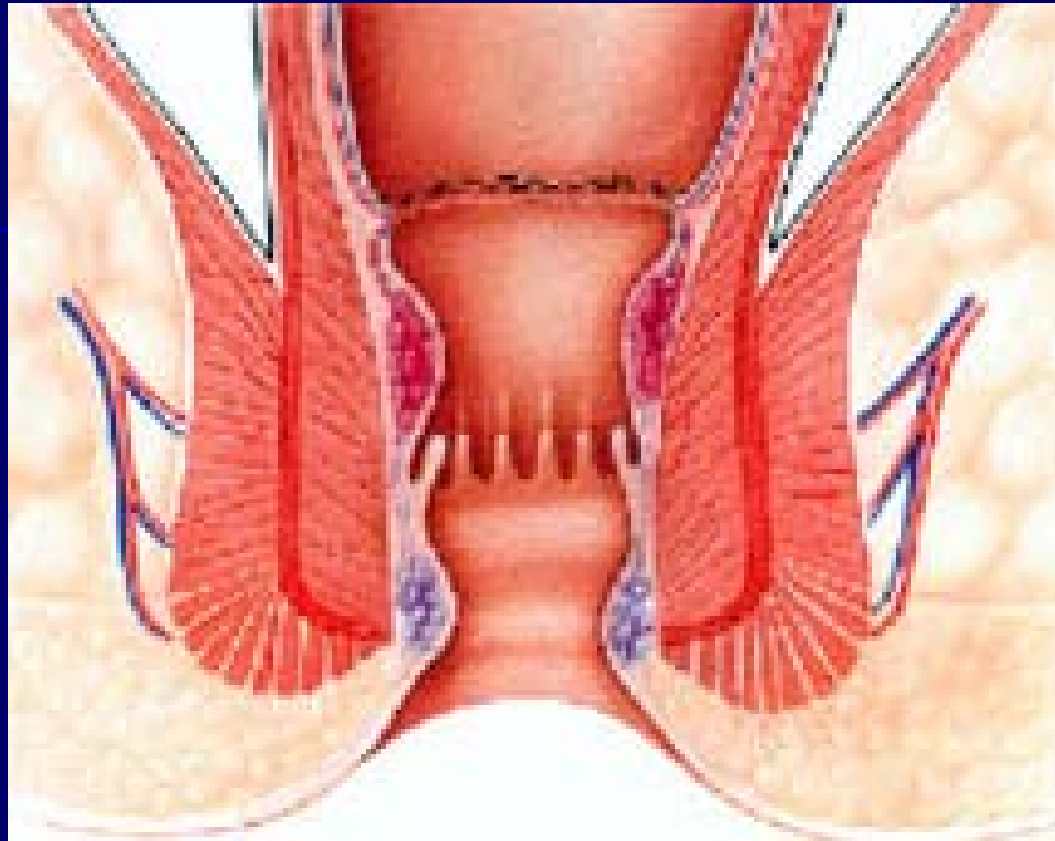
Circular Stapler introduced and pursestring suture secured



Prolapsed mucosa is accommodated in casing of PPH



Instrument is tightened and stapler fired



Double staple line is inspected for bleeding

Anal cushion integrity is maintained

Anal mucosa, anal cushions and anoderm are relocated to their original positions

Call the PPH helpline!

- 0800 028 2231

When should PPH be used?

- Grade 3 piles
- Grade 4 piles if residual external prolapse or skin tags would not be a concern
- Grade 2 with full circumferential mucosal prolapse where banding either would not be possible (due to number of bands required) or would be considered likely to be less effective

PPH compared with conventional haemorrhoidectomy

- Less pain in initial post-op period (up to 21 d post-op)
- Less time in hospital
- Shorter wound healing time
- Earlier return to normal activity
- Less bleeding after 14 d post-op
- Possible greater rate of recurrent prolapse/need for re-intervention

Audit aims

1.To fulfil NICE requirements

2.To assess PPH procedure from patients' perspective

Audit criteria for NICE technology appraisal 128 [stapled haemorrhoidopexy for the treatment of haemorrhoids]

- Patients to be included:
 - those with a diagnosis of prolapsed internal piles
 - diagnosed within a specified 3/12 period
 - BUT if unable to commit to audit of this scale... "considerable value in undertaking a structured audit of the guidance for a shorter period of time"

Audit criterion developed by NICE to support the implementation of the guidance

- “The percentage of people with *prolapsed internal piles*, for whom surgical intervention is considered appropriate, who have been offered stapled haemorrhoidopexy using a circular stapler specifically developed for haemorrhoidopexy”
- Standard = 100 %

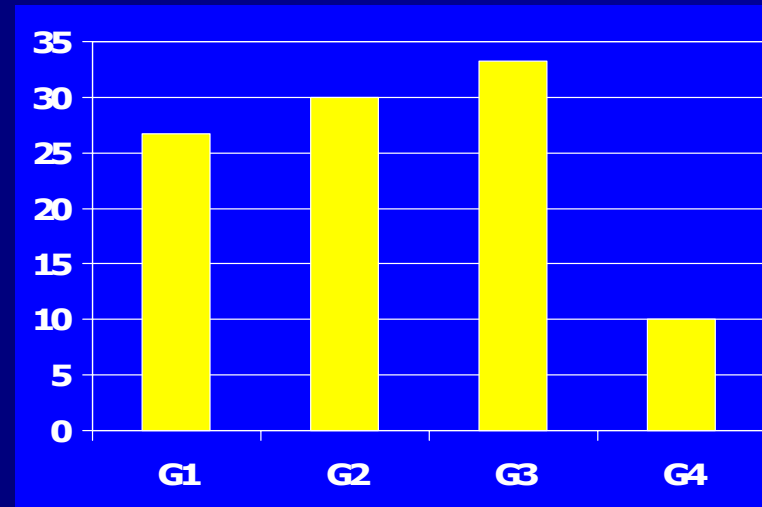
Methodology

- For Aim 1:
 - screened 1 month of colorectal clinics via clinical care records
 - all patients with symptomatic piles
 - was PPH offered in appropriate cases as per NICE audit criterion
- For Aim 2:
 - Patients who underwent PPH in 5 year period (Feb 2005 to Feb 2010)
 - Identified from consultants personal data series (PJA and WF)
 - [Very difficult to get reliable data from hospital records!]
 - Devised patient questionnaire, administered via post

NICE audit results

- Assessed 4/52 of clinics in March 2010
- 568 patients – records retrieved via clinical care
- 30 patients presented/represented with piles (5.3 %)

% of each
grade



- 19 offered surgery

Offered PPH if appropriate and considered for surgery?

- Audit criterion: % of people with prolapsed internal piles (G2,3,4) considered for surgery who have been offered PPH
- Standard = 100%

- [G1 – 4]
- G2 – 1/6 only (4 HALO, 1 haemX) |
- G3 – 2/6 only (1 HALO, 3 haemX) | offered instead
- G4 – 0/3 (3 haemX) |

- Reasons specified for not offering alternative in 2 cases (eg single pedicle only)

- Overall
 - 3/13 (23.1 %) of those considered for surgery were offered PPH
 - **3/11 (27.3 %)** if exclude G4
 - 3/8 (37.5%) if exclude HALOs

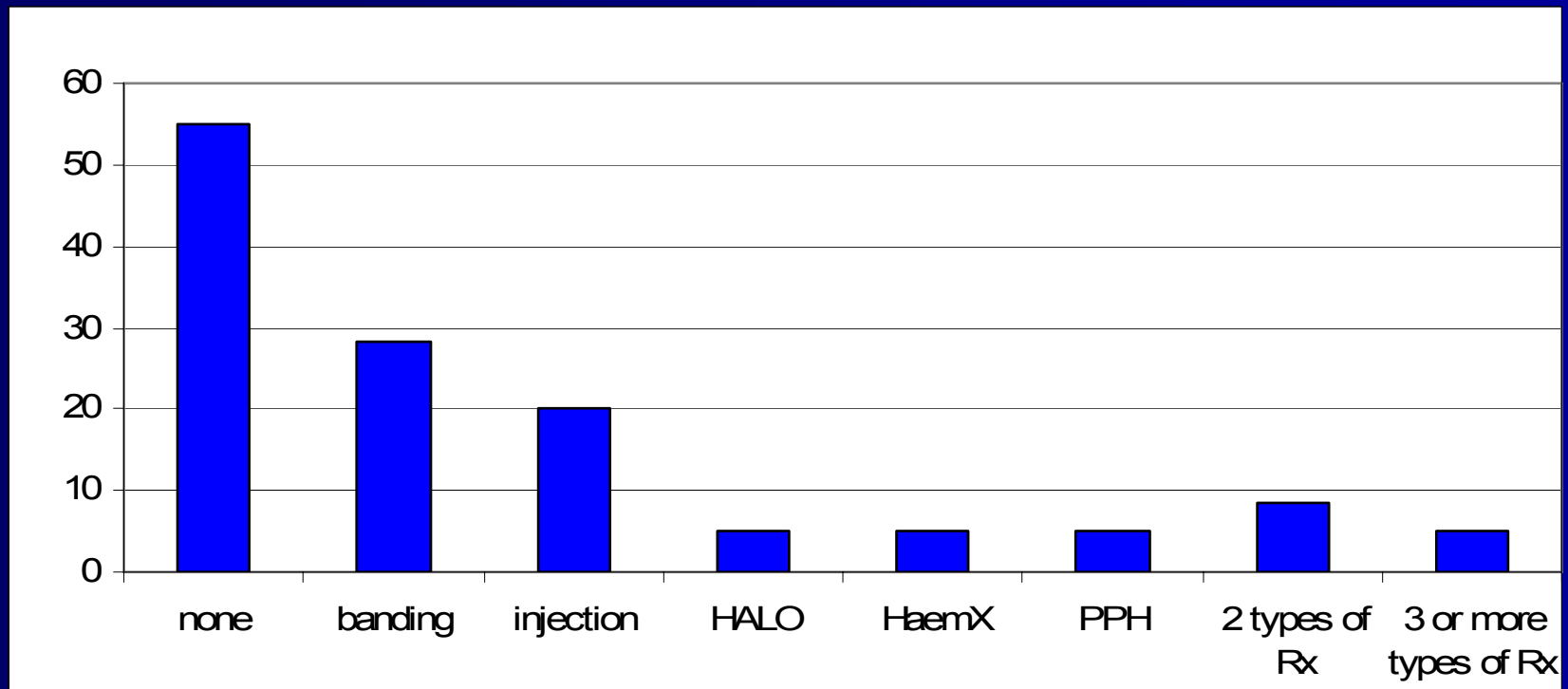
Questionnaire data

- 90 patients underwent PPH and were still alive when Q'aire administered
- M:F 38:52
- Age range: 29 to 90 years
- Follow up period: range 3/12 to 5y 3/12
- Return rate: 60/90 (66.7 %)

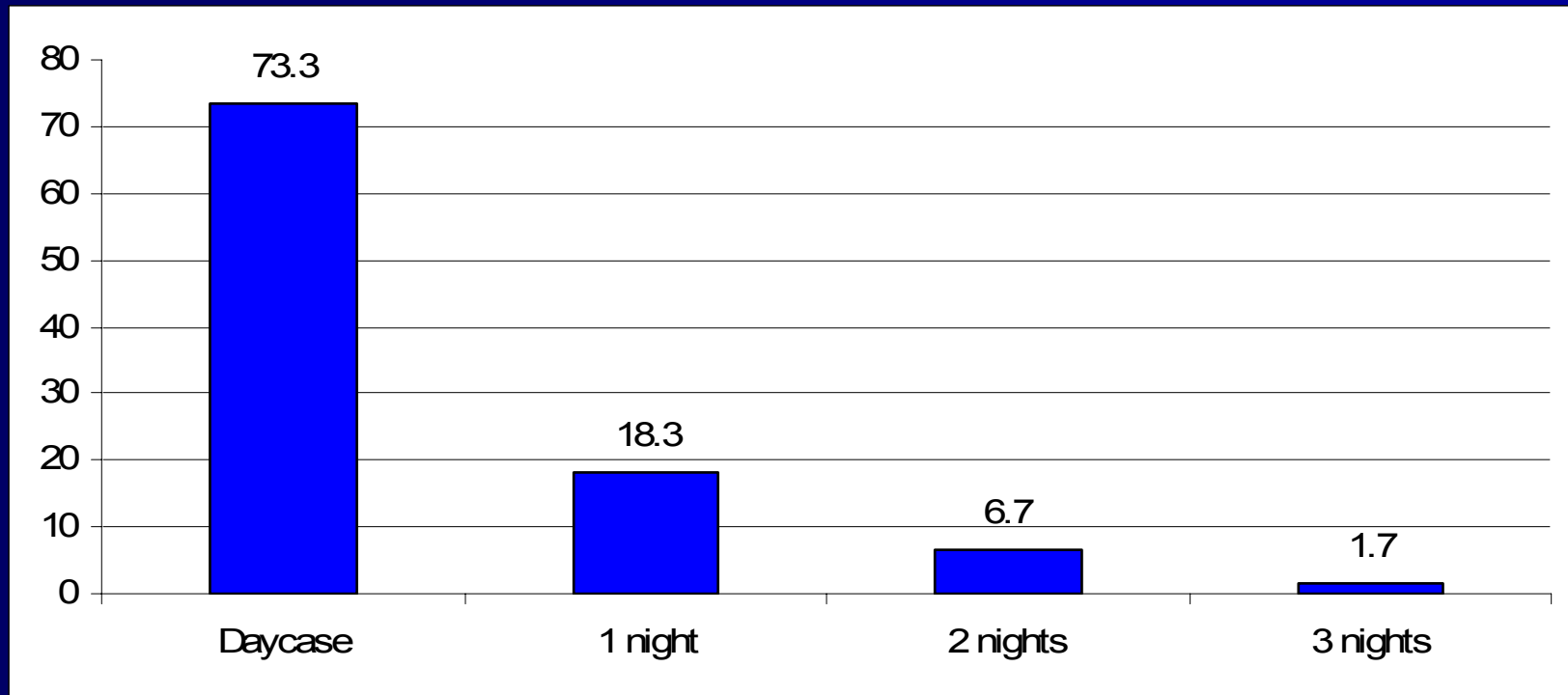
Pre-operative symptoms (%)

■ Prolapse (any)	91.7	[%: G2 14.5, G3 43.6, G4 41.8]
■ Bleeding	86.7	
■ Itch	68.3	
■ Pain	46.7	
■ Mucous	40.0	
■ Incontinence (any)	36.7	[% W 31.8, S 13.6, WS 54.5]

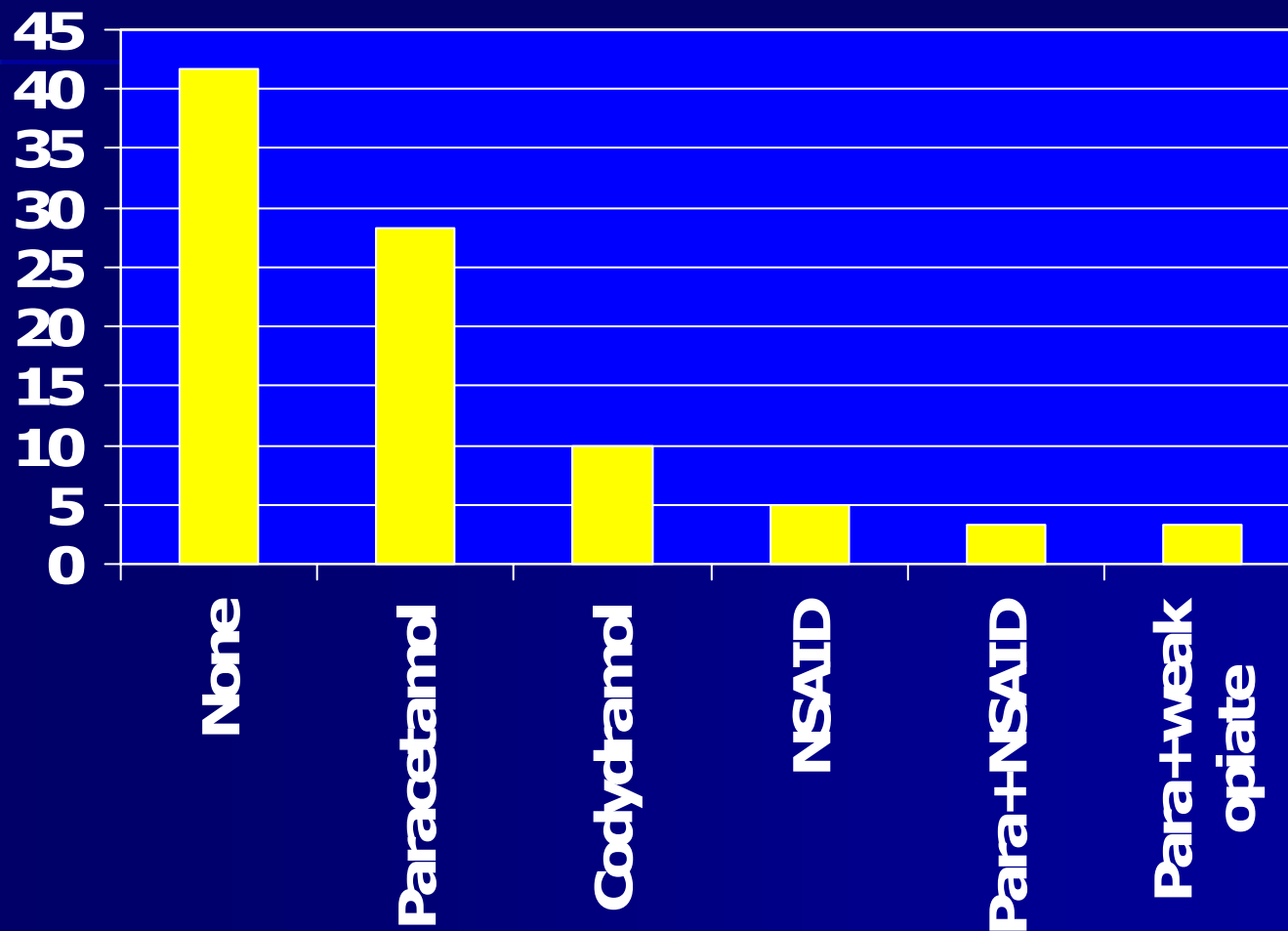
Previous pile treatments (%)



Hospital stay (%)

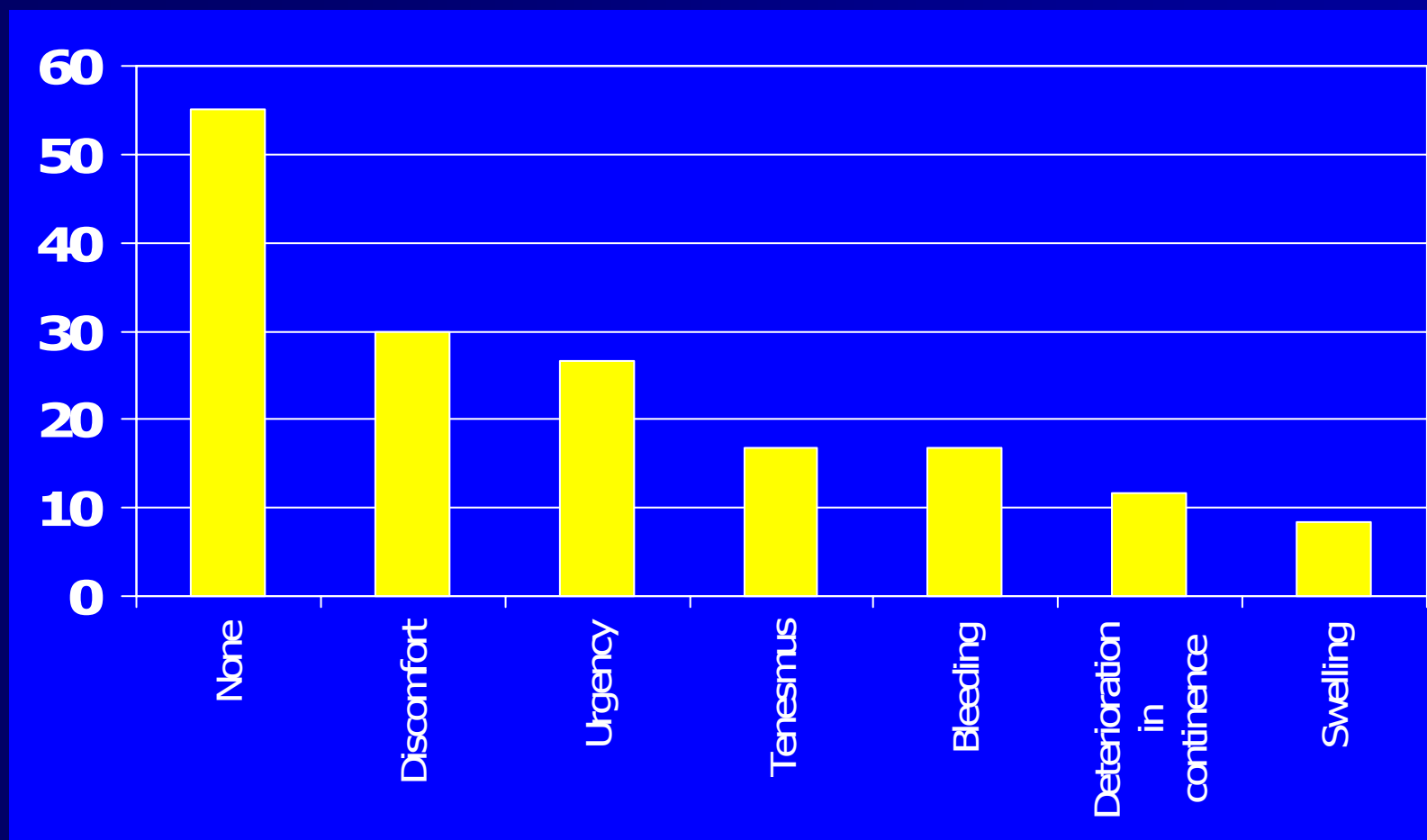


Analgesia requirement (%)



Duration of analgesic intake: range 0d to "months", mode 3 d

Problems experienced after 14 d post-operatively (%)



Problems within first 30d post-discharge

- 0/60 patients required readmission
- 0/60 patients attended ED
- 7/60 (11.7 %) visited GP (reasons, sic)
 - severe constipation
 - pain
 - saw gp re infection of wound site leading to orchiditis
 - pain back passage, dr advise to wait few more days
 - excruciating pain, burning and pain down both legs
 - incontinence to wind and motions [nb next clinic letter from pp said inco had resolved]
 - change of painkiller

Symptom resolution by 3/12

- 80 % had all their symptoms improve either completely or to a degree
- 3.3 % had no improvement in any of their symptoms
- 65 % had no recurrence/worsening of symptoms during the f/up period
- 93 % have not had re-intervention during the f/up period

Comments (sic)

“your staff where excellent”

“I cannot believe how painless this procedure was and would thoroughly recommend this to anyone. 5 years on and no problems!!”

“excellent result and attention”

“For me this procedure was a complete success. I should like to thank everyone involved. It made an enormous difference to my day-to-day life. Thank you.”

“Very pleased with my treatment. Thank you.”

“still considerable discomfort”

“I was expecting to go back to work the next day ((took 7d))...
would recommend itprovided they are advised how long
recovery could be”

“would like a different treatment to staple”

“have a deal of pain from the feet that my leg was strapped up for
the op”

“I would like a consultation to discuss some minor problems I have when having a bowel movement” [arranged]

“Just to mention I do have a very loose bowel motion all the time, this is possibly why I do not experience pain in the back passage. A problem now of this loose bowel is when I need to go I need to go, there is no hanging on as before. I start to leak if I don't get there quickly. Many thanks”

Overall

- Satisfaction with procedure = 86.7 %
- Would recommend procedure = 86.7 %
- Days before returning to
 - work: 1 to 70 (mode 7d)
 - normal activities: 1 to 84 (mode 7d)

Summary

Acknowledgements

- Mr Arumugam and Mr Faux
- Andrew Lockyer – generated list of PPH patients and their addresses and helped with questionnaire design
- Nisarg Pipalia – addressed envelopes to patients



"The hemorrhoidectomy went well and while we were in there, at your company's behest, we installed a high-speed data port..."