Early Management of the Patient with Acute GI Bleeding

Dr Sarah Hearnshaw

Consultant Gastroenterologist

Newcastle upon Tyne NHS Trust

The Newcastle upon Tyne Hospitals NHS
NHS Foundation Trust

Go through…..

- Stats
- Transfusion / resuscitation
- PPIs

- When to call us and what we want to know

Mortality in AUGIB - 2007

- Crude (unadjusted) mortality 10%
  - Inpatients 26%
  - New admissions 7%

- 46% had at least one medical co-morbidity

Co-morbidities	Mortality %
None	3.5
One	13.4
Two or more	22.2

Co-morbidity (n)	Age standardised mortality (%) (reference=10%)	95% CI
Cirrhosis (599)	28.8	23.6-34.0
Cancer (561)	21.1	17.5-24.6
Renal disease (544)	16.2	13.2-19.2
Cardiac failure (390)	15.9	12.5-19.2
Stroke (513)	15.0	12.1-17.8
IHD (1233)	14.6	12.5-16.8
Respiratory disease (742)	13.7	11.3-16.2
Dementia (401)	13.1	10.2-15.9

Case 1

- 79 yr old French female
- Melaena – witnessed large volume x 3
- T2DM, hypertension
  - Statin, aspirin, metformin, ACEi,
- OE pale but chatty, obese
  - Pulse 95bpm, BP 105/40, PR melaena
- Bloods – Hb 9.3, urea 18.5, creat 200, PT 15

Thoughts?

- Glasgow Blatchford Score
- Rockall
- End of bed?

Resuscitation in AUGIB

- To reduce risk of death and minimise end-organ damage
- Different to trauma and e.g. AAA patients
- Aims:
  - get to endoscopy to turn off tap
  - minimise risk from co-morbid disease

- ENDOSCOPY IS DANGEROUS
  - Sedation, aspiration
  - Further bleeding
  - Cardiac stressor

Which fluids when

- Cochrane Reviews
  - No benefit of colloid over crystalloid[1]
  - No benefit of albumin (some harm)[2]
- Varices and CLD
  - Resuscitation is what matters
  - Normal saline OK, blood and colloids preferred but no evidence
  - Not 5% dextrose (ascites)
  - Not FFP for resuscitation

[1]Roberts I, Alderson P, Bunn F,et al. Cochrane Database of Systematic Reviews 2004

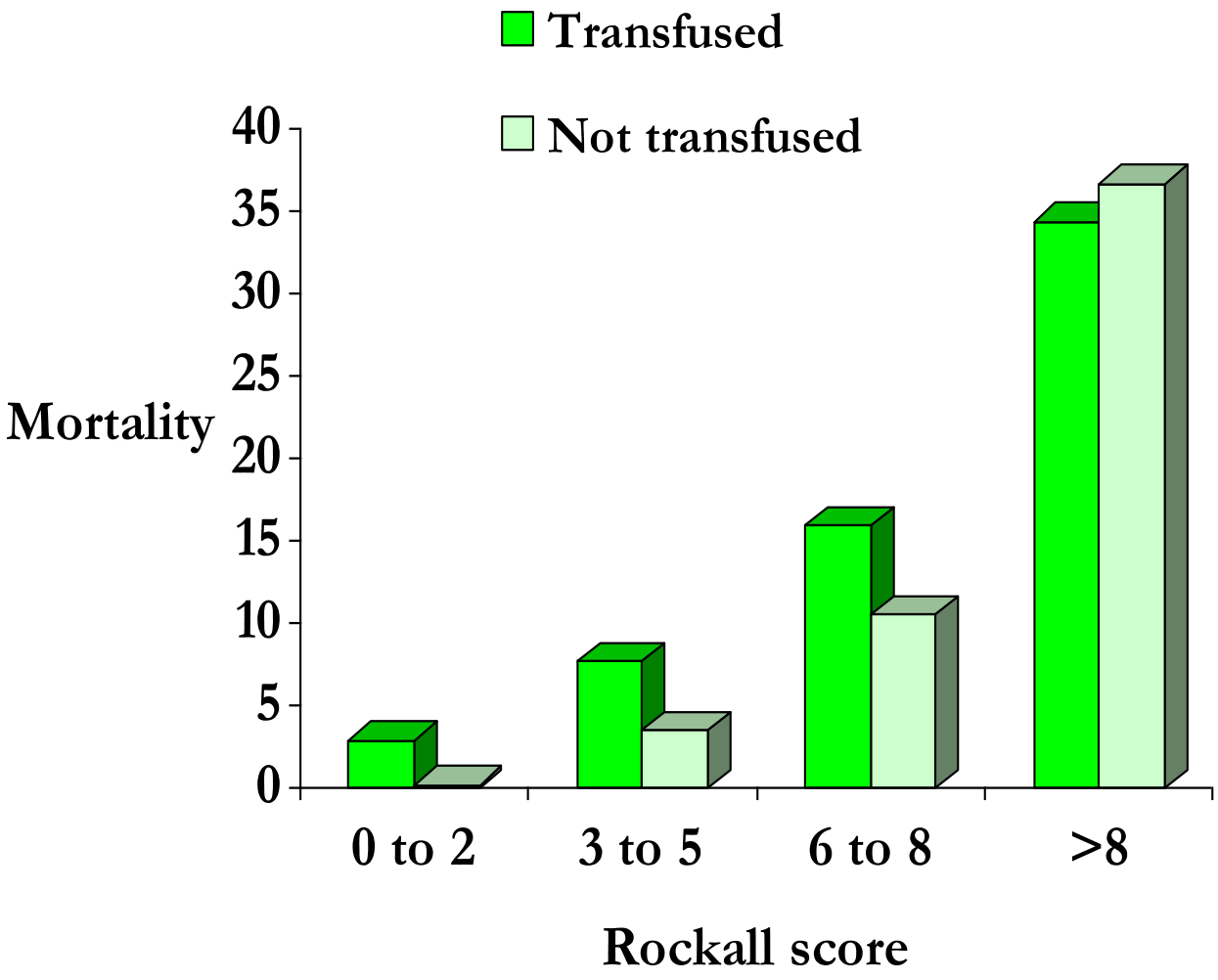
[2]Alderson P, Bunn F, Li Wan Po A et al. Cochrane Database of Systematic Reviews 1998

Thoughts?

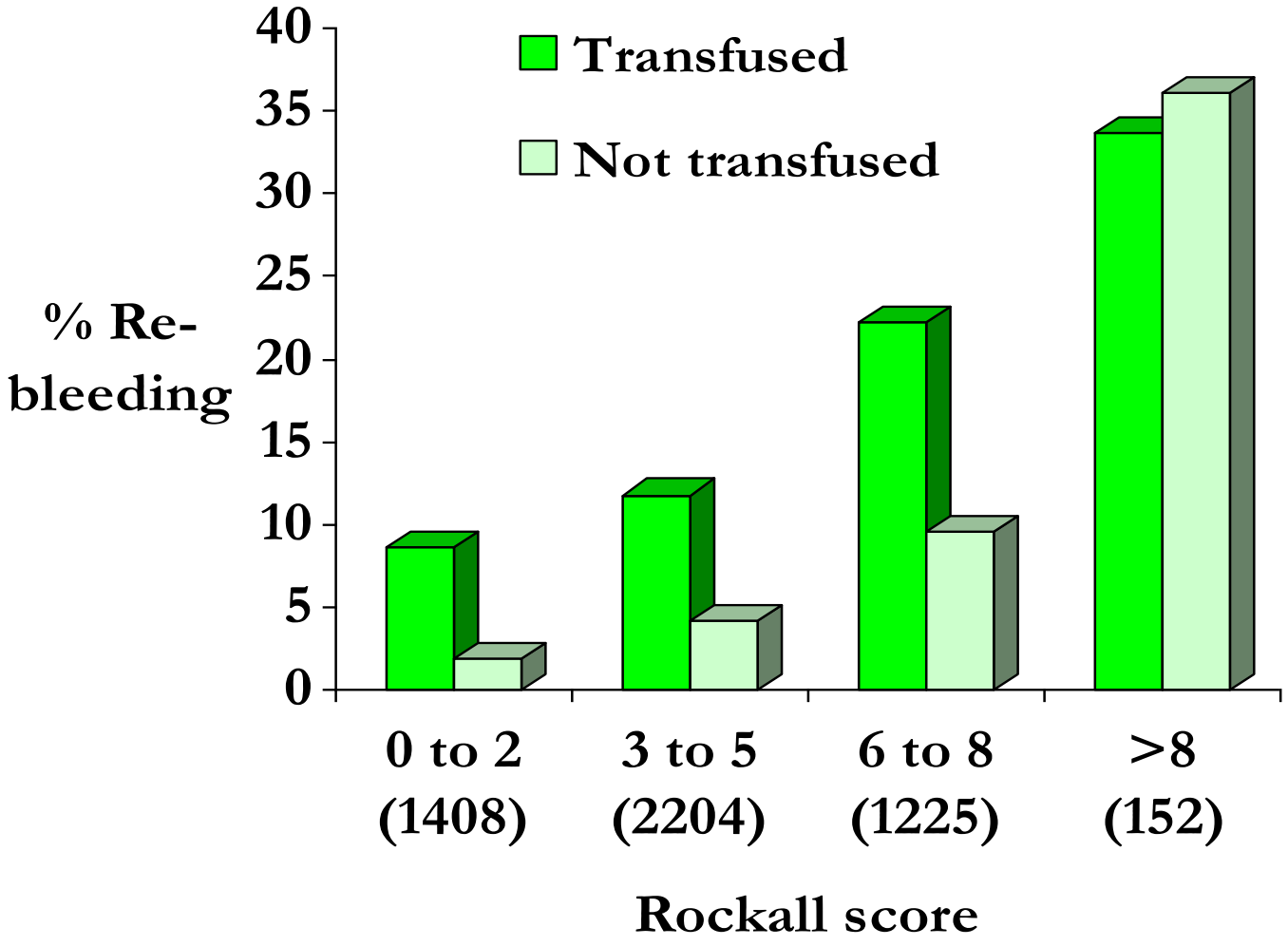
- Glasgow Blatchford Score
- Rockall
- End of bed?

- To transfuse?

RBC transfusion and mortality

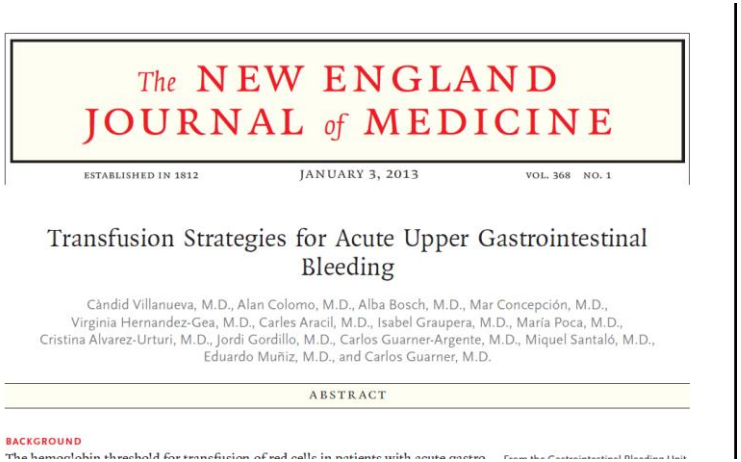


Blood transfusion in the first 12 hours and re-bleeding



Blood transfusion in AUGIB

- No evidence of benefit
- Some evidence of harm
- NEJM 2013
  - less re-bleeding if restrict transfusion to <7g/dL up to 9g/dL



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Transfusion Strategies for Acute Upper Gastrointestinal Bleeding

Càndid Villanueva, M.D., Alan Colomo, M.D., Alba Bosch, M.D., Mar Concepción, M.D., Virginia Hernandez-Gea, M.D., Carles Aracil, M.D., Isabel Graupera, M.D., María Poca, M.D., Cristina Alvarez-Urturi, M.D., Jordi Gordillo, M.D., Carlos Guarner-Argente, M.D., Miquel Santaló, M.D., Eduardo Muñiz, M.D., and Carlos Guarner, M.D.

ABSTRACT

BACKGROUND

3Villanueva C, Colombo A, Bosch A. et al. N Eng J Med 2013; 368:11 21

Transfusion Strategies for Acute Upper Gastrointestinal Bleeding

Càndid Villanueva, M.D., Alan Colomo, M.D., Alba Bosch, M.D. et al

N ENGL J MED 2013; 368:11-21

921 patients with severe acute upper GI bleeding

	Restrictive (transfuse when Hb < 70g/l)	**Liberal (transfuse when Hb <90g/l)**
Blood given	49%	76%
Died	5%	9%
Re-bleed	10%	16%
Adverse events	40%	48%

BUT

- Didn’t include patients with cardiac disease
- All scoped within six hours (not real world)
- No comparison of different risk groups
  - *Do those with high risk scores warrant a higher threshold for transfusion as more likely to re-bleed?*

Blood – when and how much?

We can allow Hb to run at a lower level

BUT

Villanueva study excluded *massive* haemorrhage

"Clinical judgement"

"Pouring out, pour it in"

Transfusion

- Young / Fit Hb ≤7 if not actively bleeding
- If old or frail Hb ≤8 if not actively bleeding
- Active bleeding / unstable after initial resuscitation – transfuse

- Repeat bloods *after* resuscitation / transfusion
- 1u at a time

Other products

- NICE guidelines 2012
  - Platelets **<50**
  - FFP **PT>18 or fib <1g**
  - PCC **Warfarin & active bleeding**
  - Factor VII **All else failed**

Back to our patient

- GBS – 13
- Pre-endoscopy Rockall – 3

- OGD same afternoon after PPI and metoclopramide
  - Duodenal ulcer bleeding

- Early endoscopy leads to
  - *early therapy*
  - *reduced blood use*
  - *reduced length of stay*

Case 1

- Adrenaline and clip to vessel
- Ward post-procedure
- Restart aspirin
- IV PPI 72 hours, HP eradication

- OP breath test to ensure eradication
- PPI (given aspirin)

PPIs in GI bleeding

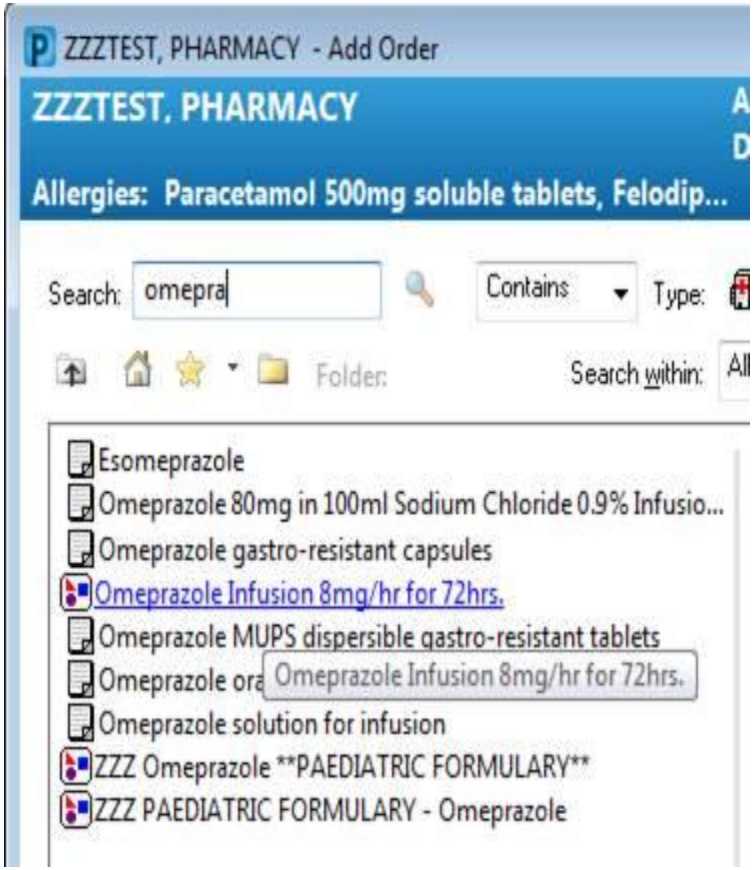
- Data from clinical trials in Hong Kong
  - IV PPI *post*-endoscopy where high risk lesions seen and treated[7]
    - Reduced re-bleeding, death, LOS
  - IV PPI *pre*- endoscopy reduced high risk stigmata, and need for therapeutic OGD
    - No effect on mortality / re-bleeding[7]
  - No harm, may benefit, “feels right”

7 Lau JY, Sung JJ, Lee KK, Yung MY, Wong SK, Wu JC, Chan FK, Ng EK, You JH, Lee CW, et al. N Engl J Med. 2000;B:310–316

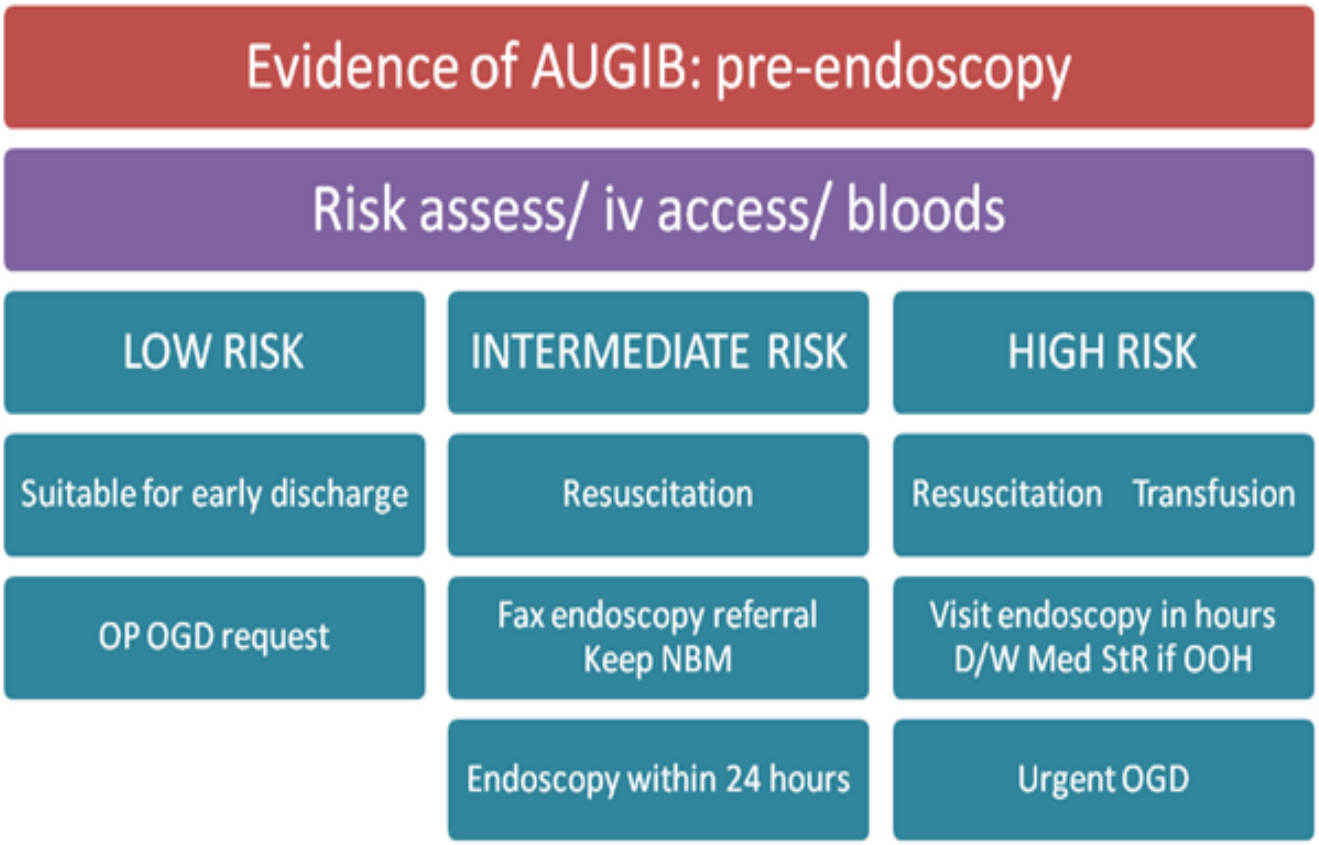
When and how to use PPIs

- No evidence for use before endoscopy – but we all do

- After endoscopic therapy
  - 80mg bolus iv
  - 72hours 10mg/hour
  - Can give high-dose oral
- Eradicate Helicobacter in all DUs – and check cleared



Care pathway



Post Endoscopy

Varices

- Glypressin
- Antibiotics
- If rebleed consider sengstaken-blakemore tube and discuss with liver registrar on call

PUD

- PPI- iv or oral depending on endoscopist recomendations
- Early discharge if low risk lesion at endoscopy
- If rebleed consider repeat endsocopy plus D/W surgeons and radiology
- DU- HP eradication and check cleared
- GU- repeat OGD 6 weeks

Prior to calling us.....

- Less Hb, more haemodynamics
- Ideally Hb >9 at endoscopy and BP >90
- Correct platelets if <50 and PT if >18secs IF ACTIVELY BLEEDING

- If haematemesis - give metoclopramide to empty stomach

Summary

- Age, co-morbidity, haemodynamics
  - Correct the correctable before referring
- We want to know how they are ***after resuscitation*** and whether endoscopy
  - Will help or will kill
- Transfuse with caution – be restrictive

Questions?