# Challenges with the anaemic pre-operative patient

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Government of South Australia

SA Health


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# Anaemia

- Common
- Need to see your patients early
- Need to look
- Need to check
- Need to communicate
- Need to treat
- Ability to help (drug, ward, staff)
- Time limitations

# IRON FOOTPRINT

- Make it big
- Make it available
- Choose the right treatment
- Be progressive
- Follow up
- Provide feedback

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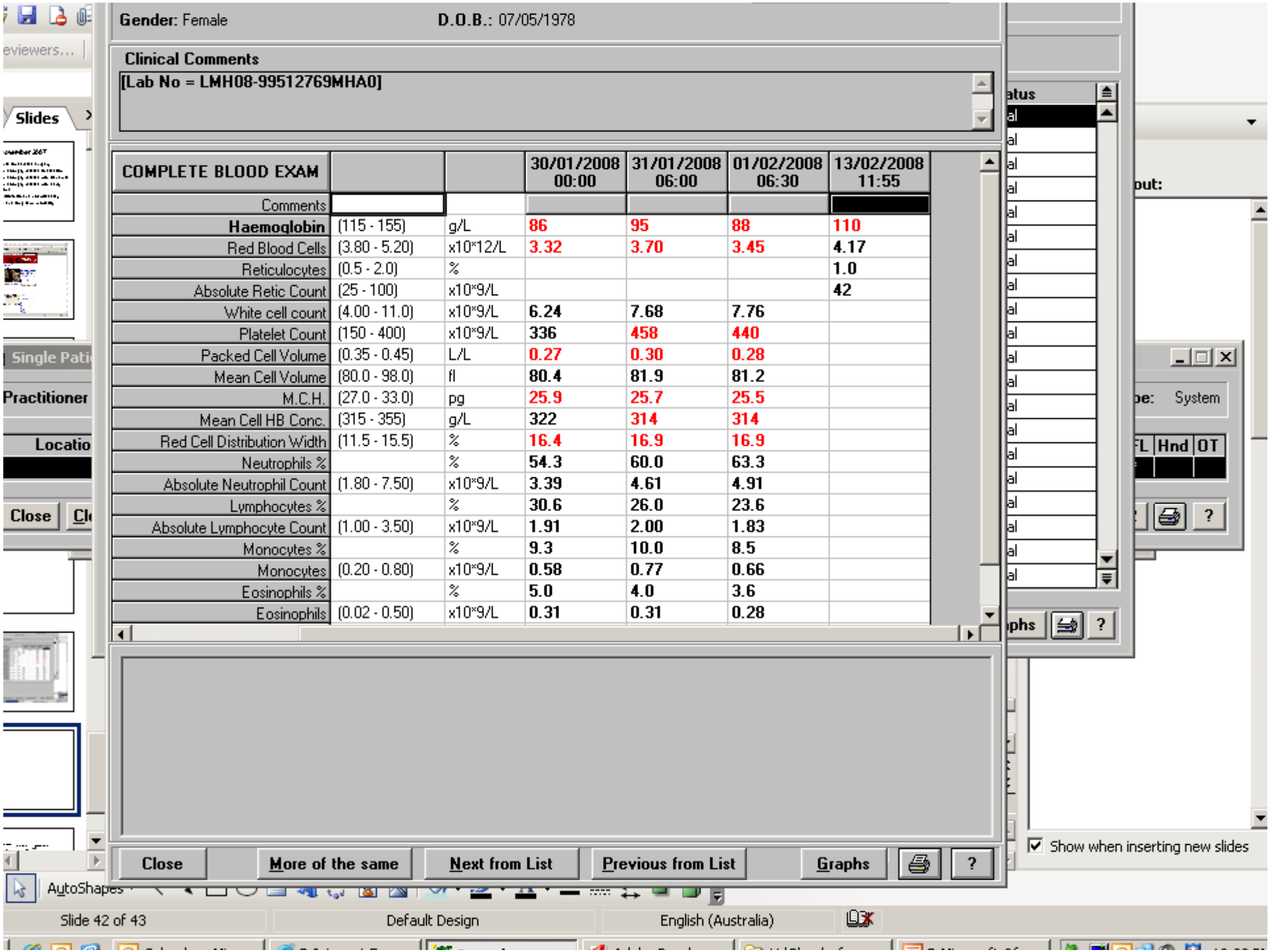
# Patient One

- 29 y old female
- Crohn's disease Laparotomy x 3 in 2 years
- Latest in Jan 2008
- 10 days TPN post OP
- 3 x 200 mg Iron sucrose as outpatient after d/c home with PICC line



**Gender:** Female **D.O.B.:** 07/05/1978

**Clinical Comments**

[Lab No = LMH08-99512769MHA0]

| COMPLETE BLOOD EXAM | | | 30/01/2008 00:00 | 31/01/2008 06:00 | 01/02/2008 06:30 | 13/02/2008 11:55 |
|---|---|---|---|---|---|---|
| Comments | | | | | | |
| **Haemoglobin** | (115 - 155) | g/L | 86 | 95 | 88 | 110 |
| Red Blood Cells | (3.80 - 5.20) | x10*12/L | 3.32 | 3.70 | 3.45 | 4.17 |
| Reticulocytes | (0.5 - 2.0) | % | | | | 1.0 |
| Absolute Retic Count | (25 - 100) | x10*9/L | | | | 42 |
| White cell count | (4.00 - 11.0) | x10*9/L | 6.24 | 7.68 | 7.76 | |
| Platelet Count | (150 - 400) | x10*9/L | 336 | 458 | 440 | |
| Packed Cell Volume | (0.35 - 0.45) | L/L | 0.27 | 0.30 | 0.28 | |
| Mean Cell Volume | (80.0 - 98.0) | fl | 80.4 | 81.9 | 81.2 | |
| M.C.H. | (27.0 - 33.0) | pg | 25.9 | 25.7 | 25.5 | |
| Mean Cell HB Conc. | (315 - 355) | g/L | 322 | 314 | 314 | |
| Red Cell Distribution Width | (11.5 - 15.5) | % | 16.4 | 16.9 | 16.9 | |
| Neutrophils % | | % | 54.3 | 60.0 | 63.3 | |
| Absolute Neutrophil Count | (1.80 - 7.50) | x10*9/L | 3.39 | 4.61 | 4.91 | |
| Lymphocytes % | | % | 30.6 | 26.0 | 23.6 | |
| Absolute Lymphocyte Count | (1.00 - 3.50) | x10*9/L | 1.91 | 2.00 | 1.83 | |
| Monocytes % | | % | 9.3 | 10.0 | 8.5 | |
| Monocytes | (0.20 - 0.80) | x10*9/L | 0.58 | 0.77 | 0.66 | |
| Eosinophils % | | % | 5.0 | 4.0 | 3.6 | |
| Eosinophils | (0.02 - 0.50) | x10*9/L | 0.31 | 0.31 | 0.28 | |

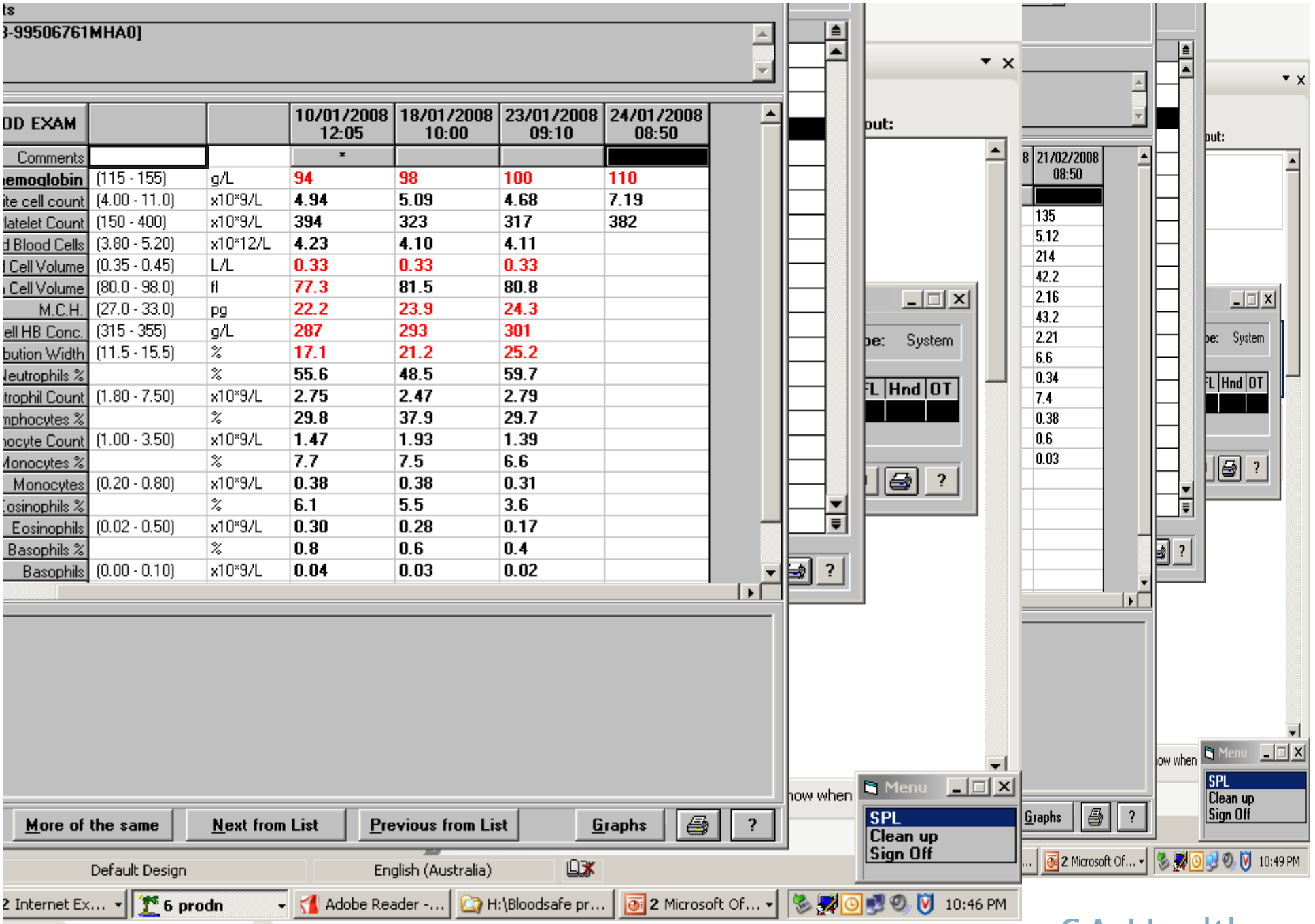
Close | More of the same | Next from List | Previous from List | Graphs | ?

Show when inserting new slides

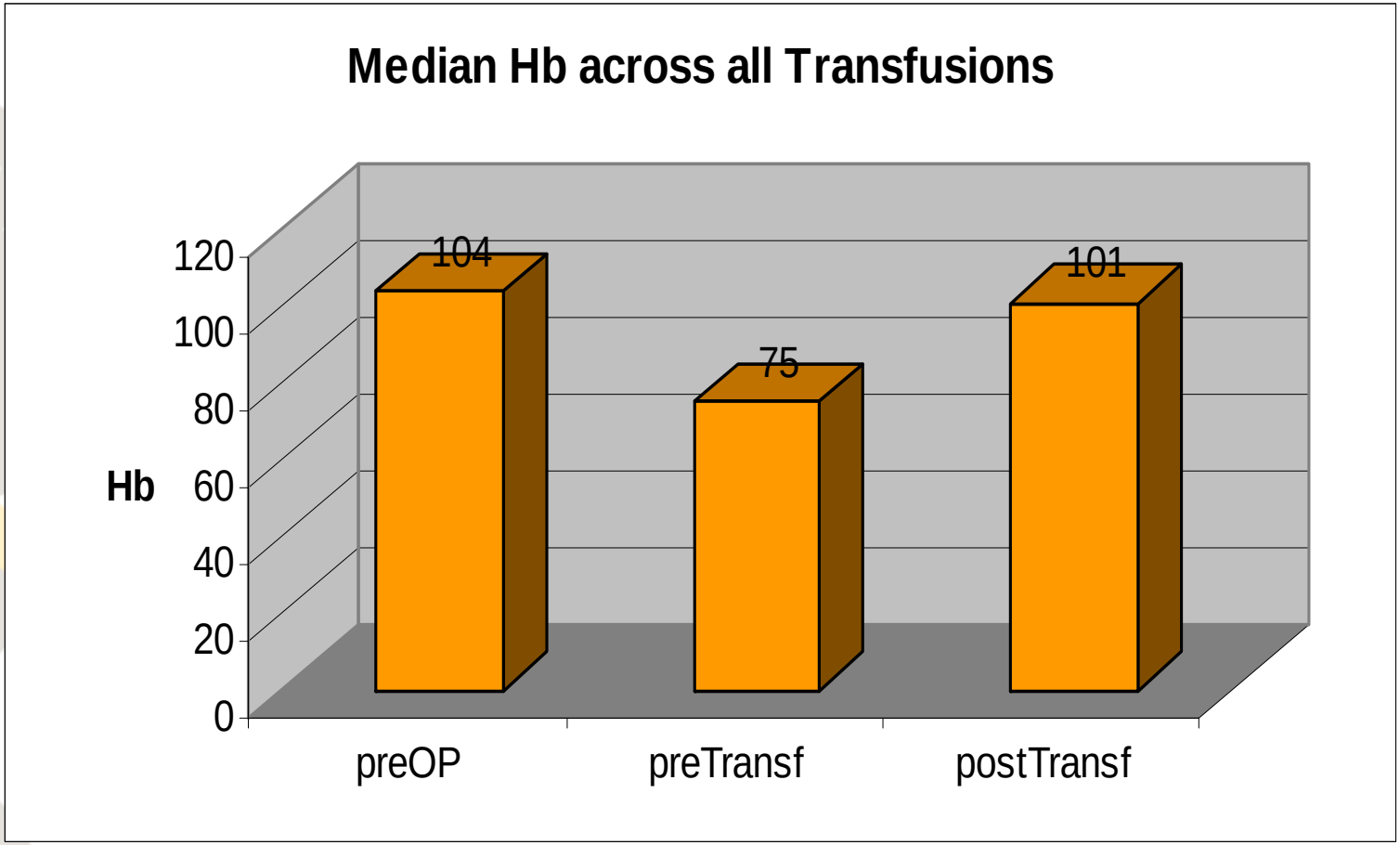
Slide 42 of 43 | Default Design | English (Australia)

# Patient Two

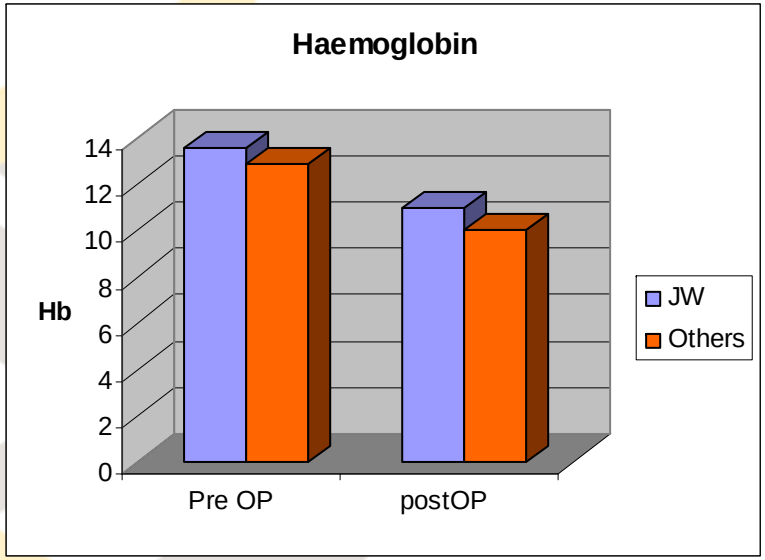
- 46 y old female
- Ulcerative colitis
- 6 months documented anaemia
- No treatment
- 10 days to surgery, no delay possible
- 4 x 200 mg Iron sucrose as outpatient

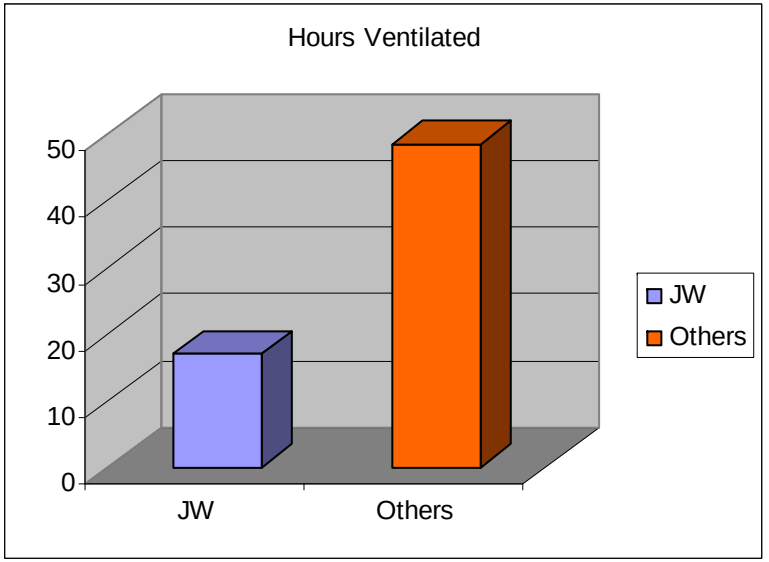

3-99506761MHA0]
OD EXAM
10/01/2008 12:05
18/01/2008 10:00
23/01/2008 09:10
24/01/2008 08:50
Comments
Haemoglobin (115 - 155) g/L 94 98 100 110
White cell count (4.00 - 11.0) x10*9/L 4.94 5.09 4.68 7.19
Platelet Count (150 - 400) x10*9/L 394 323 317 382
Red Blood Cells (3.80 - 5.20) x10*12/L 4.23 4.10 4.11
Red Cell Volume (0.35 - 0.45) L/L 0.33 0.33 0.33
Mean Cell Volume (80.0 - 98.0) fl 77.3 81.5 80.8
M.C.H. (27.0 - 33.0) pg 22.2 23.9 24.3
Mean Cell HB Conc. (315 - 355) g/L 287 293 301
Distribution Width (11.5 - 15.5) % 17.1 21.2 25.2
Neutrophils % % 55.6 48.5 59.7
Neutrophil Count (1.80 - 7.50) x10*9/L 2.75 2.47 2.79
Lymphocytes % % 29.8 37.9 29.7
Lymphocyte Count (1.00 - 3.50) x10*9/L 1.47 1.93 1.39
Monocytes % % 7.7 7.5 6.6
Monocytes (0.20 - 0.80) x10*9/L 0.38 0.38 0.31
Eosinophils % % 6.1 5.5 3.6
Eosinophils (0.02 - 0.50) x10*9/L 0.30 0.28 0.17
Basophils % % 0.8 0.6 0.4
Basophils (0.00 - 0.10) x10*9/L 0.04 0.03 0.02
More of the same
Next from List
Previous from List
Graphs
Default Design
English (Australia)
Menu
SPL
Clean up
Sign Off
21/02/2008 08:50
135
5.12
214
42.2
2.16
43.2
2.21
6.6
0.34
7.4
0.38
0.6
0.03
System
Hnd
OT
10:46 PM
10:49 PM

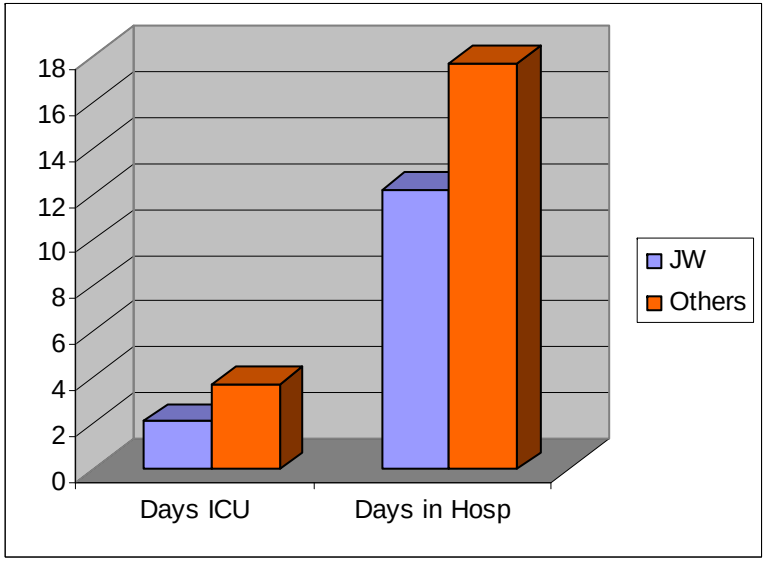
# Lyell McEwin Data



# Single standard of care?




Reyes, Rev Esp Cardiol 2007

Stamou, Am J Cardiol 2006

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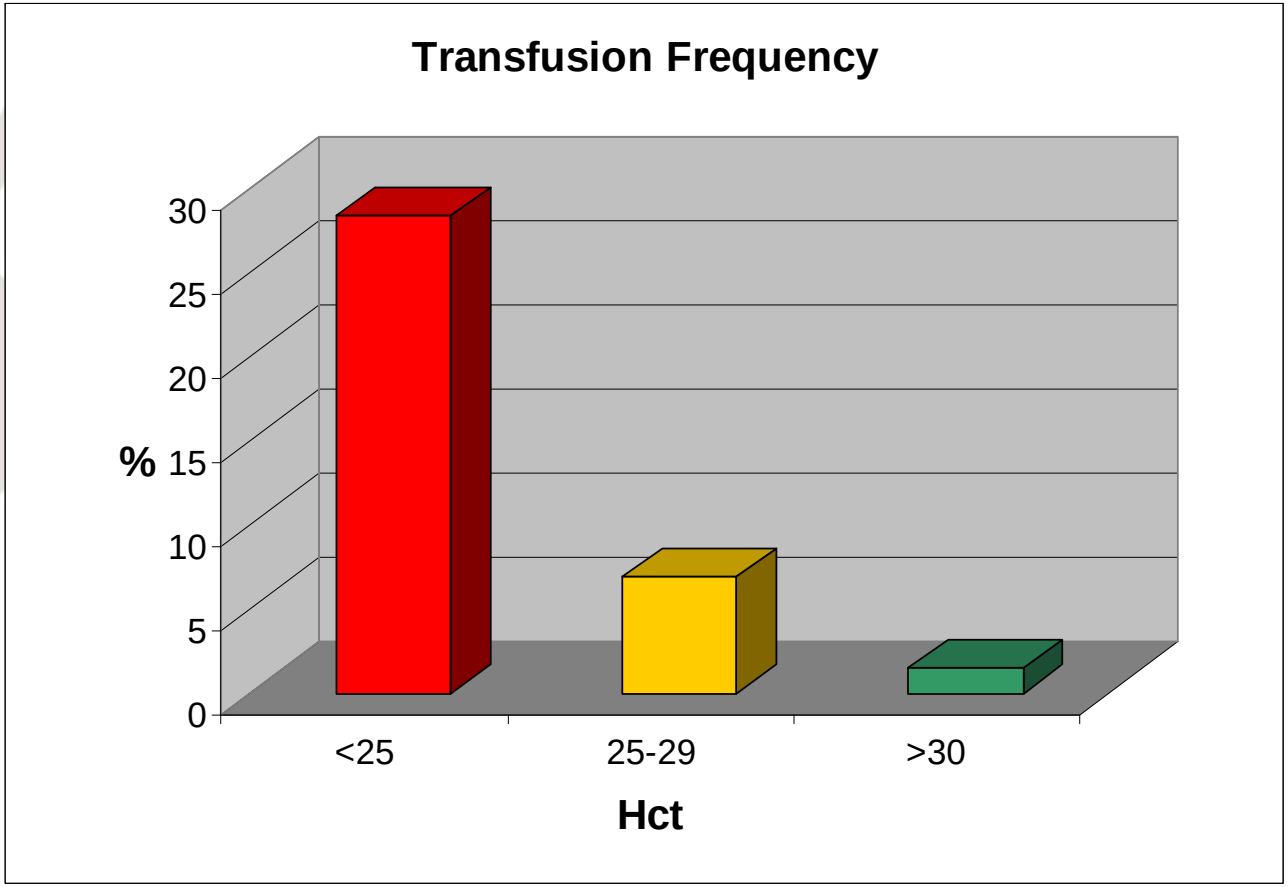
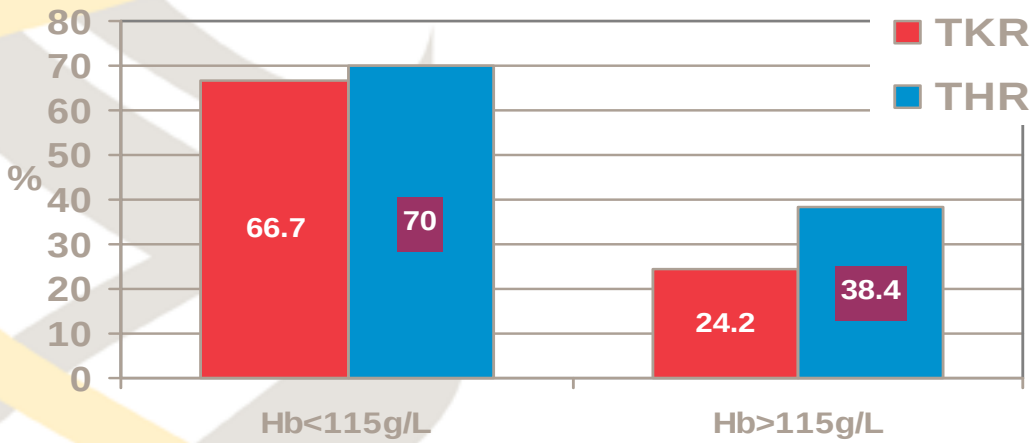
# Transfusion in caesarean deliveries



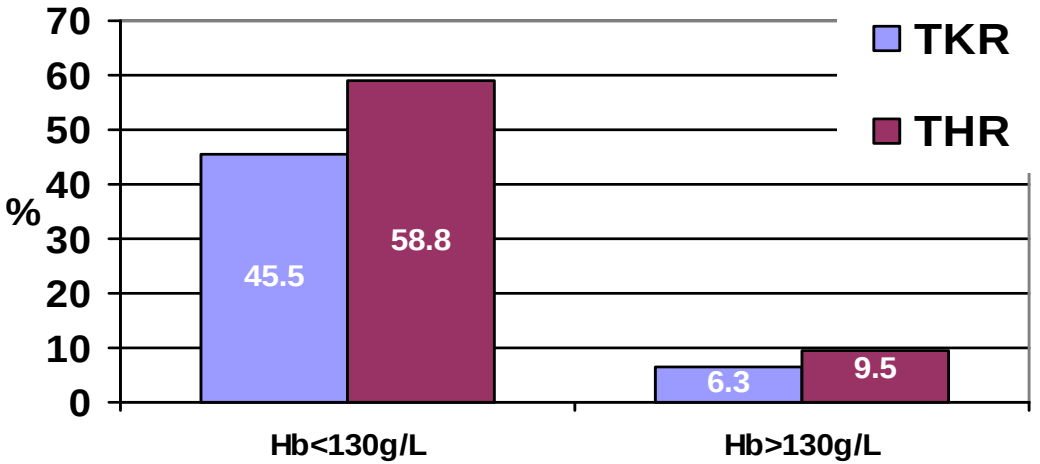

*Rouse et al Obstet Gynecol 2006*

# Hb predicts transfusion rates




**Pre-operative Anaemia and Allogenic Transfusion Rate Females**

**Pre-operative Anaemia and Allogenic Transfusion Rate Males**




Courtesy of R. Seigne
Christchurch, New Zealand

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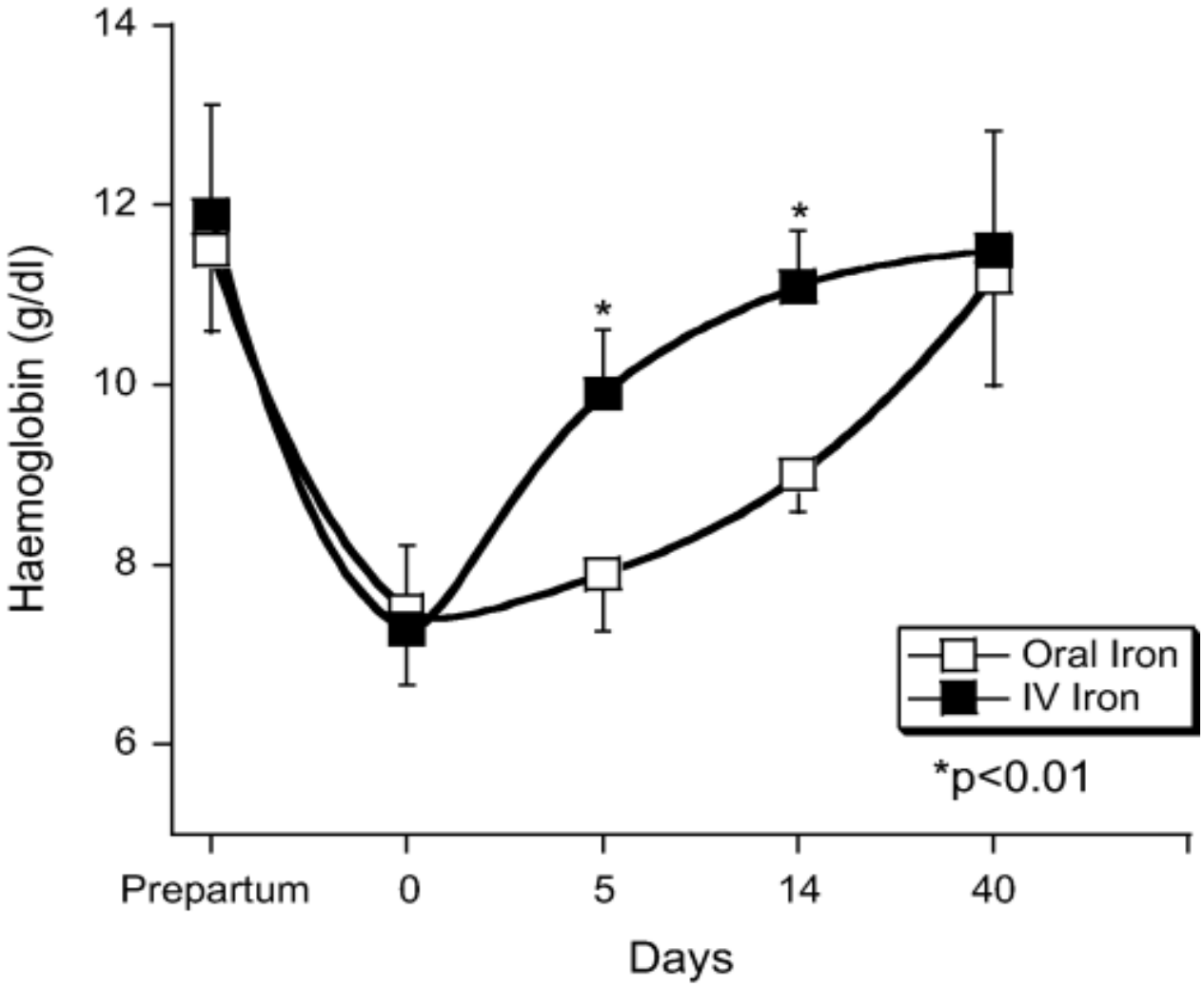
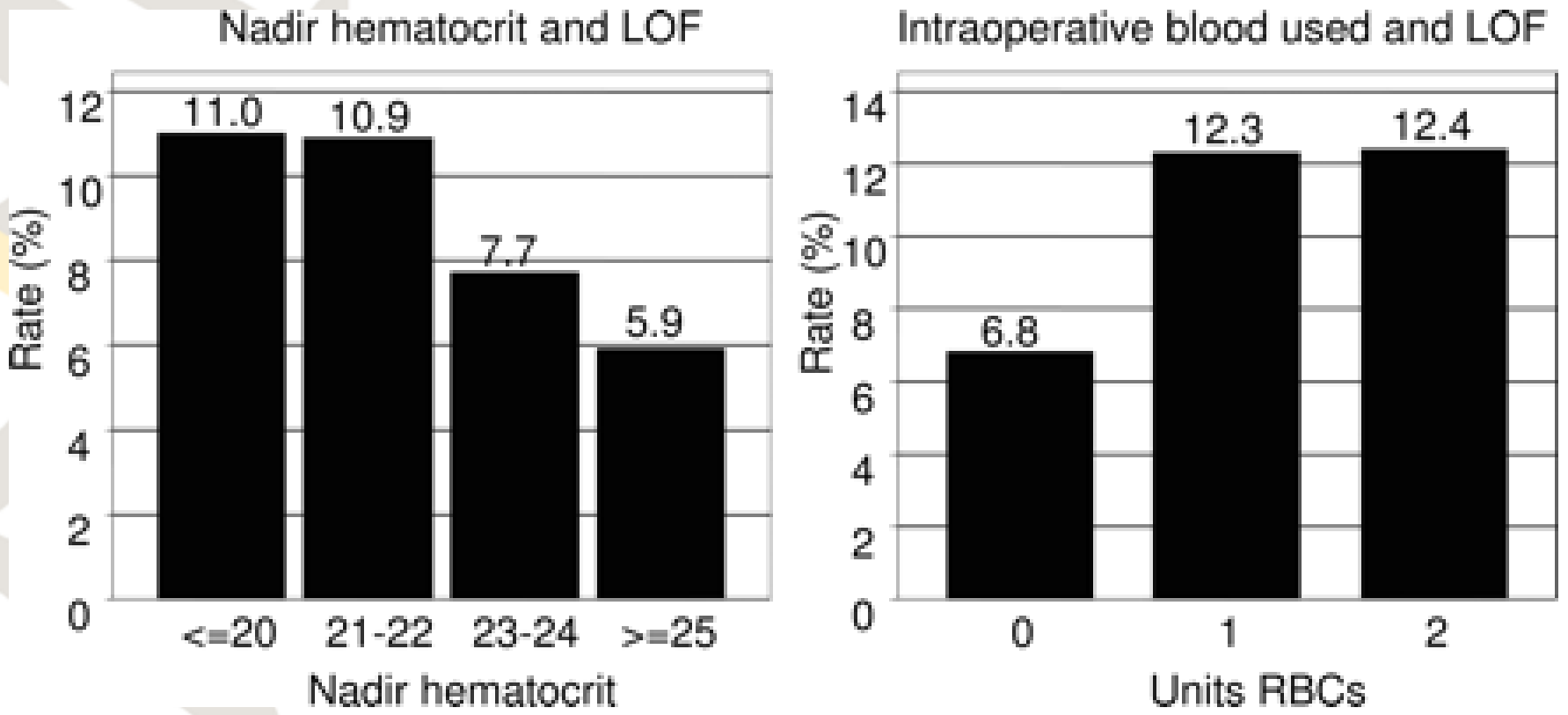
# Iron deficiency anaemia

Pictures are unavailable.




Bhandal and Russell BJOG 2006

# Low output failure




**Surgenor** et al.:*Circulation.* 2006;114:I-43 – I-48.

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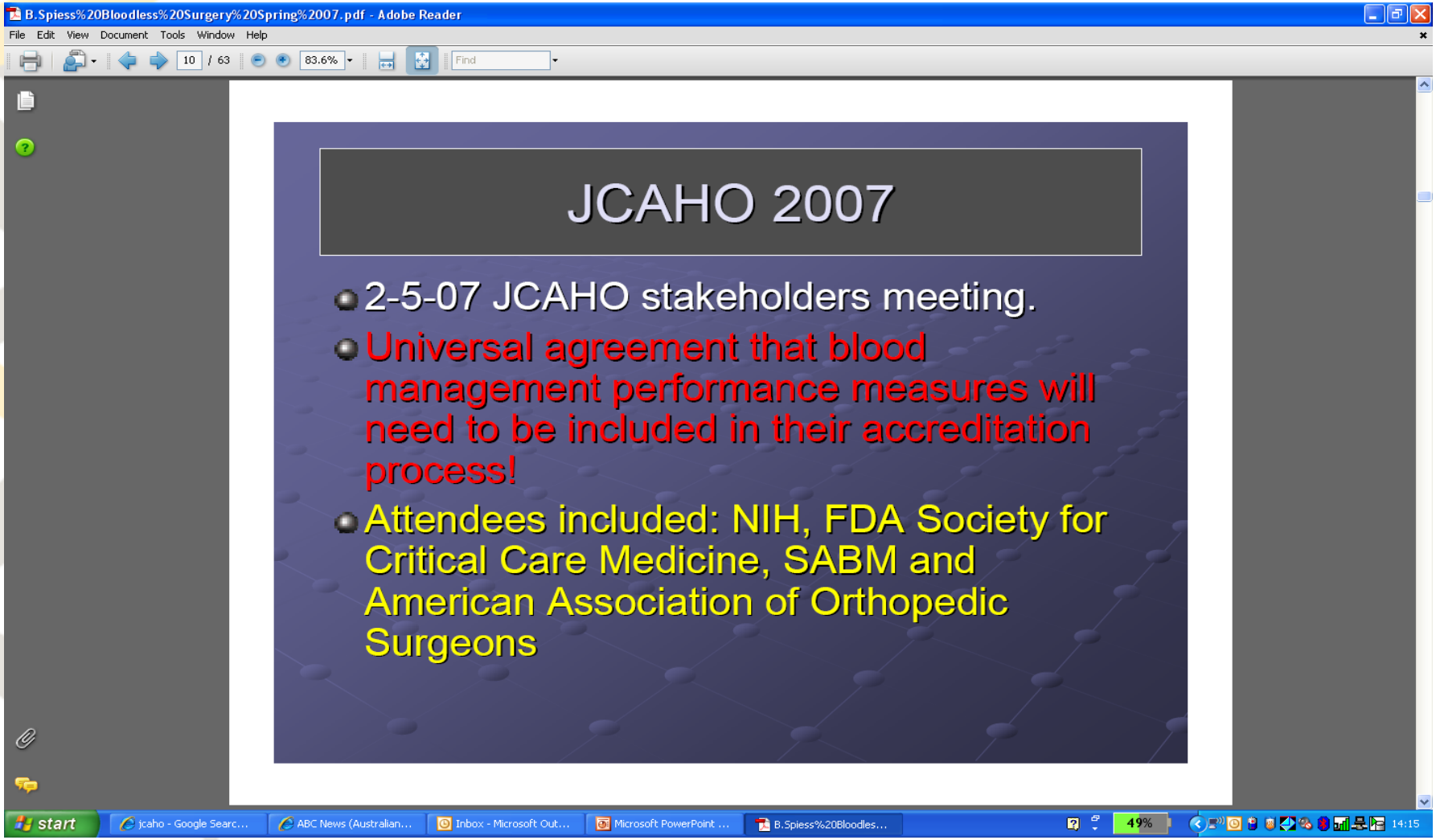
# EQuIP/The Australian Council on Healthcare Standards (ACHS)



# Summary

- Put your patient first
- Enforce Blood Management
- Focus on education
- Make resources available
- Reward high achievers