Dotting the 'i', Crossing the 't'

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The problem of sloppy practice

- Waste of time
 - Clinical Staff
 - Laboratory Staff
- Waste of resources
- Unnecessary needles for patients

Serious problems...

- Delay in achieving safe transfusion
 - Inconvenient
 - Push transfusion into the night
 - Can be life threatening
- Serious incompatibility reactions
 - Can be fatal

Western Sussex figures

- Worthing Hospital
 - 22757 samples per annum
 - 8404 rejected as second sample not reqd.

- 3730 rejected for identification issues
- 2 Wrong blood in tube

Blood Transfusion Committee



Blood Transfusion Committee



Scary Nurse Practitioner!



Scary Nurse Practitioner!

Accident and Emergency



Scary Nurse Practitioner! Maternity Department



Impact?

Impact?

None!

Further audit – Standards:

- Patient Identification
 - Ask patient first name, surname and dob
 - Check details match wristband
 - Check wristband details match request form
- Sample labelling
 - Label sample before leaving patient
 - Sign tube as person drawing sample
 - Bleed one patient at a time
 - Never pre-label tubes
- Competency has the individual passed?

Results

Staff Doctors Midwives Phlebotomists

Pat. Id

23%

15%

100%

Labelling

57%

77%

100%

Blood Transfusion Committee



Blood Transfusion Committee



Impact?

Impact?

None!

Despite our efforts.....

GROUP & SCREEN F	REPORT	Western Sussex Hospitals NHS Trust Tel 01903 205111 Ext 5675	
Hosp No.: 208170 Consultant: SAINS, MR P Patient's Blood Group:	Porenames: DoB: 12/12/1978 Ward: Diagnosis: Into satellite blood bank: Date	Zone C Emergency Floor Time Sign	
Blood Group: Not Atypical Antibody Screen: Not	Tested Tested	WITH DIEFFRENT PATIENT	
Notes: SAMPLE: INCORRECT DETAILS	PATIENT BLED & LABELI	LED WITH DIFFERENT PATIENT	
Sample No.: XM4867 Sample date XM4867	Wrong	blood in tube	e!

Blood Transfusion Committee



STOP!

Before transfusion, carry out these checks

Ask the patient to state their forename, surname, date of birth (if not possible, use wristband)
Then Check:

- Forename, surname, date of birth, NHS/hospital No. match wristband & prescription.
- 2. All patient details on this tag match wristband.
- Donor number on tag matches donor number on component.
- Patient blood group on tag matches blood group on component. Lab must inform you of any differences between donor and patient groups.
- 5. Expiry date (& time) on component.
- Component meets special requirements on prescription.

Do not transfuse unless the component is faultless and all details on wristband, tag and component match. If not, inform lab, and return component.

If you suspect a reaction STOP the transfusion, and seek medical advice.

Transfer Tape

	\triangleleft	Western Sussex Hospitals 175 Trust	Lab Number	Date and Time Received
NO	25.62	Hospital / NHS Number Date of Birth Gender M / F		
nsi	PRINT CLEARLY. IEN CORRECTLY?	Forename	Consultant / GP	Patient Location / Copy To
NSF	POINT PEN, PRI	NHS PP Cat II	Requested by (PRINT NAME)	Ext/Bleep Date
TRA		Reference Clinical Information resears for requests' previous readiless' known ordinated	Hospital site for planned proce Urgent Reques SRH Ext. 3589 / Bleep 070	
5		Group and Save Red Cells(Units/ml)	Required On (Date & Time)	Collected By (PRINT NAME)
2	PLEASE I	Crossmatch "Plate-ets	/ / :	Date and Time
8	_	DAT "FFP / Cryoprecipitate (Units/ml) Eleihauer Blood Products e.g. Anti-D, HAS, PCC	Special Requirements Irradiated	/ / :
		Other basel	CMV Negative	I certify this sample was taken in accordance with Trust procedure.

		Western Sussex Hospitals Trust Lab Number Date	and Time Received
N	* 5	Hospital / NHS Sumber Date of Eirth Gender M/F	
Sic	PRINT CLEARLY.		Location / Copy To
ISF	T PEN, PRIN SPECIMEN O	NHS PP Cat II	sep Date
TRANSFUSION	POINT	Reference Clinical Information Hospital site for planned procedure: SRH Urgent Requests Cont.	
	SEA	SRH Ext. 3589 / Bleep 070 WaSH Ext Group and Swee Red Cells Quintify Required On (Date & Time) Collected	t. 5675 / Bleep 273 I By (PRINT NAME)
BLOO	PLEASE U	Crossmatch "Plate ets	1 Time
Ω	_	Elehauer Blood Products e.g. Anti-D, HAS, PCC Irradiated /	/ :
	1 Ox		e with Trust procedure.



		Western Suss	sex Hospitals WES Trust	Lab Number	Date and Time Received
NO	7 471	Hospital / NHS Number	Date of Birth Gender M / F		
nSi	PRINT CLEARLY. SEN CORRECTLY?	Forename		Consultant / GP	Patient Location / Copy To
ISF		NH	S PP Cat II	Requested by (PRINT NAME)	Ext/Bleep Date
TRANSFUSION	BALL POIN	Relevant Clinical Inform reasons for requestir previous			ests Contact Lab WaSH Ext. 5675 / Bleep 273
2	85	Group and Save	Red Cells(Units/ml)	Required On (Date & Time)	Collected By (PRINT NAME)
BLOOF	PLEASE HAVE YOU	Crossmatch	*Plate-ets(Units/ml)	/ / :	
쩌	프로	DAT	*FFP / Cryoprecipitate (Units/ml)	Special Requirements	Date and Time
	_	Eleihauer	Blood Products e.g. Anti-D, HAS, PCC	Irradiated	/ / : I certify this sample was taken in
	1	Other Issel	(Dase/ml)	CMV Negative	accordance with Trust procedure.





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Western S	ussex Hos	pitals 💯🕒 Tru	ist Lab	Number		Date and Tir	ne Receive
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Surname			Con	sultant / GP		Patient Locatio	n / Copy To
Forename							
			Req	uested by (PR	INT NAME)	Ext / Bleep	Date
	NHS PP	Cat II					1 1
Referent Clinical Inc reasons for request/ pre		rwn antibodies		Urge	ent Reque	edure SRH or sts Contact La WaSH Ext. 5675	ь
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Crossmatch	*Plate-ets.	(Units/ml)	/	1	:		
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PLEASE USE A BALL POINT PEN, PRINT CLEARLY.	HAVE YOU LABELLED THE SPECIMEN CORRECTLY?	

Western Sussex Ho	spitals 🖟	Trust	Lide Workber	Hate and Thee Received:	
Hospital / NHS Number	Date of E	irth Gender			- 9.5
Surname 4	шш		Consultant / GP Requested by SNRNT NAME)	Patient Location / Copy To	5 15-9
Forename			response of Print Really	Sat / Sleeps Date / /	
NHS P	P Cat II		loquital site for planned proce Urgent Reques 391 bst. 3589 / Bleep 6/9		34 6
Relevant Clinical Information (paners for request) provious reactions)	become builty it. it	I confirm that I have:			Signature
Eventure tre marking to backlotte seactions)	Chown artificiates	action one patient to	state first name, sumar		
		Checked the patient	details match the patier	nt's wristband	
		Checked the wristbar	ic details match those o	on the request form	
		Labelled the tube bef	fore leaving patient's be	edside	
Group and Save Bed Celb	Qtexts/cul)	Signed tube as persor	n drawing sample		
Crossmotch 19Labelets	- Binistell	I have bled only one p	patient and have not pr	e-labelled the tube	
DNT PRT*/ Oyogwoodpitas			cross match samples at		
	Okrechell Requirements oid	I take responsibility fo	or sampling procedure :	accuracy Signed	
	* Phone	Laboratory to dis	scuss requirement	54	



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PLEASE USE A BALL POINT PEN, PRINT CLEARLY. HAVE YOU LABELLED THE SPECIMEN CORRECTLY?

Western Sussex Hospitals WIF Trust

ne Laboratory to discuss requirements

Lab Worsber

Hate and Thee Received:

Signature



Fresh from the printers...

BLOOD TRANSFUSION

JONES & BROOKS 01706 645088

A JB EASISEAL SPECIMEN FORM. PATENT NO. 2221208 B

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Western Sussex Hospitals NHS Tr	ust	Lab Number	Date a	and Time Received
Hospital / NHS Number Date of Birth	Gender M / F	LAB USE	ONLY	,
D D M M Y Y Y	IVI / F	Consultant / GP	Patient L	ocation / Copy To
Surname AFFIX ADDRESSOGRAPH LABEL HERE Forename	i	Requested by (PRINT NAME)	Ext / Blee	ep Date
NHS PP Cat II	"	Hospital site for planned procedu Urgent Requests SRH Ext. 3589 / Bleep 070 W	Conta	ct Lab
Relevant Clinical Information (reasons for request / previous reactions / known antibodies)	I confirm	that I have:-		Signature
(reasons for request/ previous reactions / known antibodies)	Asked the	patient to state first name, surname & date	of birth	
	Checked	the patient details match the patient's w	ristband	
		he wristband details match those on the req	•	
		the tube before leaving patient's bedside	е	
Group and Save Red Cells(Units/ml)		be as person drawing sample		
Crossmatch *Platelets(Units/ml)		d only one patient and have not pre-labelled		
DAT *FFP / Cryoprecipitate (Units/ml)	I have no	t taken two cross match samples at the s	ame time	
Kleihauer Blood Products e.g. Anti-D, HAS, PCC Other (state)(Dose/ml)	I take res	ponsibility for sampling procedure accura	acy Signe	d
Required On (Date & Time) Special Requirements	Print Nam	ne GM0	C/NMC PIN	
/ / : Irradiated CMV Negative	Date	<i>J</i> Time		
	torv to d	liscuss requirements		

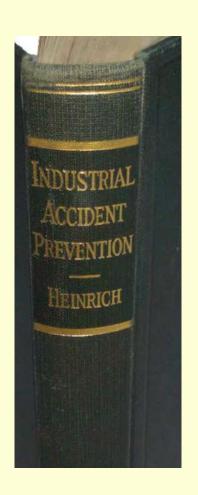
Present time

- New forms accepted and in use
- Global letter sent highlighting importance of following instructions
- All WBITs lead to ban in sampling followed by retraining
- Impression lower rate but still occuring



Herbert William Heinrich Industrial Insurance Investigator 1920s America

Industrial Accident Prevention 1931



THE FOUNDATION
OF A MAJOR INJURY

MINOR INJURIES

300 NO-INJURY ACCIDENTS

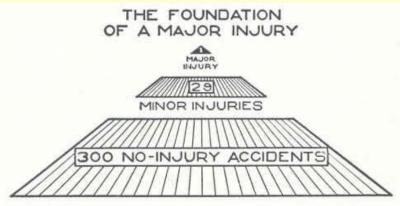
00.3% OF ALL ACCIDENTS PRODUCE MAJOR INJURIES----08.8% OF ALL ACCIDENTS PRODUCE MINOR INJURIES----90.9% OF ALL ACCIDENTS PRODUCE NO INJURIES-----

THE RATIOS GRAPHICALLY PORTRAYED ABOVE---1--29-300 SHOW THAT IN A UNIT GROUP OF 330 SIMILAR ACCIDENTS, 300 WILL PRODUCE NO INJURY WHATEVER, 29 WILL RESULT ONLY IN MINOR INJURIES AND 1 WILL RESULT SERIOUSLY.

THE MAJOR INJURY MAY RESULT FROM THE VERY FIRST ACCIDENT OR FROM ANY OTHER ACCIDENT IN THE GROUP.

MORAL-PREVENT THE ACCIDENTS AND THE INJURIES WILL TAKE CARE OF THEMSELVES.

Industrial Accident Prevention 1931



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The Heinrich 300-29-1 Model

MANAGEMENT

CONTROLS

MAN FAILURE KNOWLEDGE-ATTITUDE-FITNESS-ABILITY

WHICH CAUSES OR PERMITS

OF PERSONS

- OPERATING WITHOUT CLEARANCE, FAILURE TO SECURE OR WARN
- OPERATING OR WORKING AT LINSAFE SPEED
- MAKING SAFETY DEVICES INOPERATIVE
- USING UNSAFE EDUIPMENT, OR EQUIPMENT UNSAFELY
- UNSAFE LOADING, PLACING, MIXING, COMBINING, ETC.
- 6. TAKING UNSAFE POSITION OR POSTURE
- WORKING ON MOVING OR DANGEROUS EQUIPMENT
- DISTRACTING, TEASING, ABUSING, STARTLING, ETC.
- FAILURE TO USE SAFE ATTIRE OR PERSONAL PROTECTIVE DEVICES

UNSAFE MECHANICAL OR PHYSICAL CONDITIONS

- INADEQUATELY GUARDED, GUARDS OF IMPROPER HEIGHT, STRENGTH, MESH, ETC.
- UNGUARDED, ABSENCE OF REQUIRED GUARDS
- DEFECTIVE, ROUGH, SHARP, SLIPPERY, DECAYED, CRACKED, ETC.
- UNSAFELY DESIGNED MACHINES, TOOLS, ETC.
- UNGAPELY ARRANGED, POUR HOUSEKEEPING, CONCESTION, BLOCKED EXITS, ETC.
- NADEQUATELY LIGHTED, SOURCES OF GLARE, ETC.
- INADEQUATELY VENTILATED, IMPURE AIR SOURCE, ETG.
- UNSAFELY CLOTHED, NO GOGGLES GLOVES OR WASKS, WEARING HIGH HEELS, ETC.

10%

WHICH CAUSE

A CCIDENTS 2% ARE UNPREVENTABLE 50% ARE PRACTICABLY PREVENTABLE 98% ARE OF A PREVENTABLE TYPE

Fig. 6. Chart of direct and proximate secident causes.

Why?

MANAGEMENT CONTROLS MAN FAILURE KNOWLEDGE-ATTITUDE-FITNESS-ABILITY WHICH CAUSES OR PERMITS UNSAFE MECHANICAL UNSAFE ACTS OR PHYSICAL CONDITIONS OF PERSONS INADEQUATELY GUARDED, GUARDS OF OPERATING WITHOUT CLEARANCE, FAILURE TO SECURE OR WARN IMPROPER HEIGHT, STRENGTH, MESH, ETC LINGUARDED, ABSENCE OF 2. OPERATING OR WORKING AT REQUIRED GUARDS LINSAFE SPEED DEFECTIVE, ROUGH, SHARP, SLIPPERY, 3. MAKING SAFETY DEVICES DECAYED, CRACKED, ETC. INOPERATIVE 4. UNSAFELY DESIGNED MACHINES, 4. USING UNSAFE EDUIPMENT, OR EQUIPMENT UNSAFELY TOOLS, ETC. LINSAFELY ARRANGED FOOR HOUSEKEEPING 5. UNSAFE LOADING, PLACING, MIXING. CONCESTION, BLOCKED EXITS, ETC. COMBINING, ETC. INADEQUATELY LIGHTED, 6. TAKING UNSAFE POSITION SOURCES OF GLARE, ETC. OR POSTURE INADEQUATELY VENTILATED, 7. WORKING ON MOVING OR IMPURE AIR SOURCE, ETC. DANGEROUS EQUIPMENT LINEAFELY CLOTHED, NO GOGGLES GLOVES DISTRACTING, TEASING, ABUSING. OR WASKS WEARING HIGH HEELS, ETC. STARTLING, ETC. FAILURE TO USE SAFE ATTIRE OR 10% PERSONAL PROTECTIVE DEVICES WHICH CAUSE ACCIDENTS 2% ARE UNPREVENTABLE 50% ARE PRACTICABLY PREVENTABLE 98% ARE OF A PREVENTABLE TYPE Fig. 6. Chart of direct and proximate accident causes.

Why?

MANAGEMENT CONTROLS MAN FAILURE KNOWLEDGE-ATTITUDE-FITNESS-ABILITY WHICH CAUSES OR PERMITS UNSAFE MECHANICAL UNSAFE ACTS OF PERSONS OR PHYSICAL CONDITIONS INADEQUATELY GUARDED, GUARDS OF OPERATING WITHOUT CLEARANCE, IMPROPER HEIGHT, STRENGTH, MESH, ETC. FAILURE TO SECURE OR WARN LINGUARDED, ABSENCE OF 2. OPERATING OR WORKING AT REQUIRED GUARDS LINSAFE SPEED DEFECTIVE, ROUGH, SHARP, SLIPPERY, MAKING SAFETY DEVICES DECAYED, CRACKED, ETC. INCIPERATIVE UNSAFELY DESIGNED MACHINES, 4. USING UNSAFE EQUIPMENT, OR EQUIPMENT UNSAFELY TOOLS, ETC. LINEAPELY ARRANGED FOOR HOUSEKEEPING, 5. UNSAFE LOADING, PLACING, MIXING. COMBINING, ETC. CONCESTION, BLOCKED EXITS, ETC. INADEQUATELY LIGHTED, 6. TAKING UNSAFE POSITION SOURCES OF GLARE, ETC. OR POSTURE INADEQUATELY VENTILATED, 7. WORKING ON MOVING OR IMPURE AIR SOURCE, ETC. DANGEROUS EQUIPMENT LINSAFELY CLOTHED, NO GOGGLES GLOVES 8. DISTRACTING, TEASING, ABUSING, OR WASKS WEARING HIGH HEELS, ETC. STARTLING, ETC. FAILURE TO USE SAFE ATTURE OR PERSONAL PROTECTIVE DEVICES MANUEL PRINCE ACCIDENTS 2% ARE UNPREVENTABLE 50% ARE PRACTICABLY PREVENTABLE 98% ARE OF A PREVENTABLE TYPE

Fig. 6. Chart of direct and proximate secident causes.

Why?

Domino effect

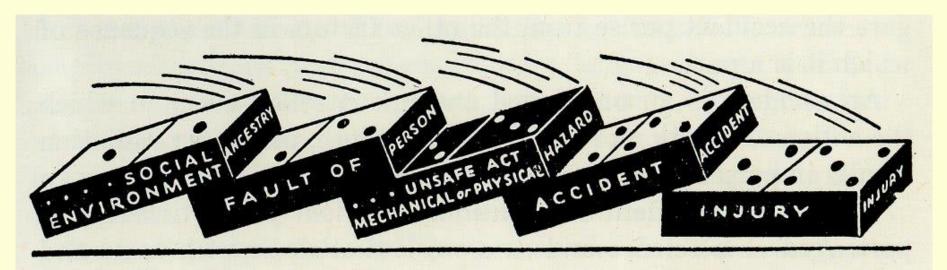


Fig. 3. The injury is caused by the action of preceding factors.

Domino effect

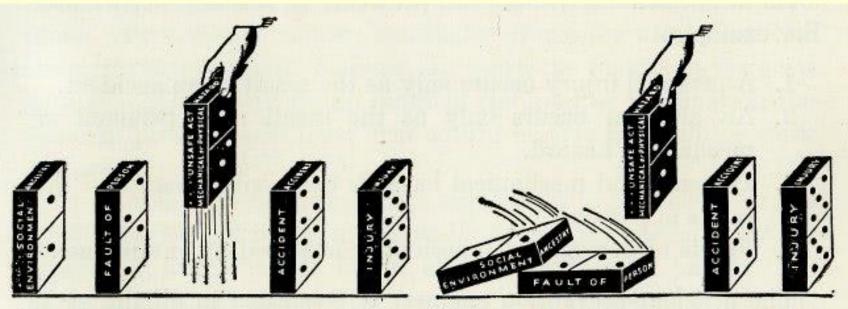
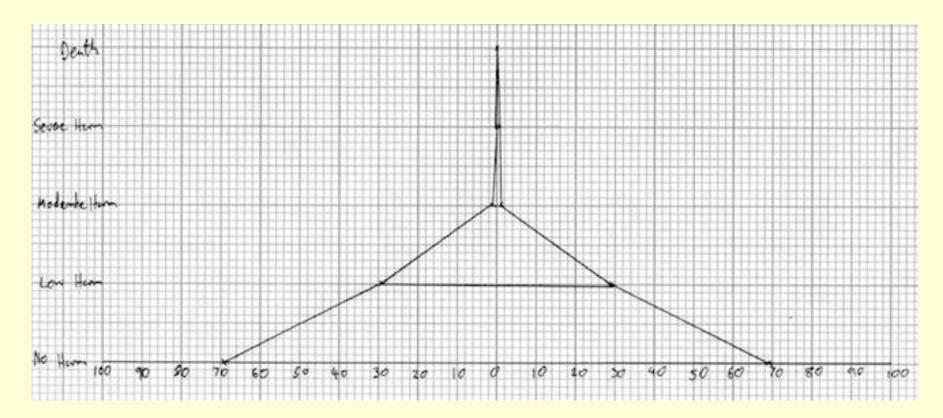


Fig. 4. The unsafe act and mechanical hazard constitute the central factor in the accident sequence.

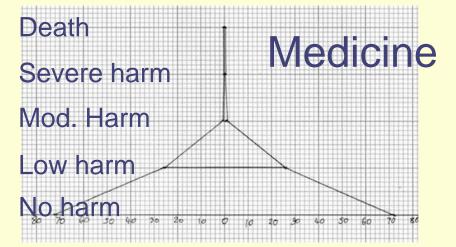
Fig. 5. The removal of the central factor makes the action of preceding factors ineffective.

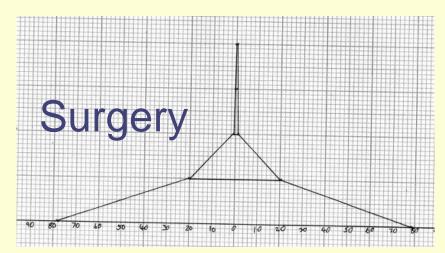
NHS and Triangles



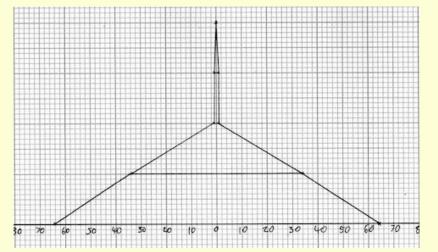
Western Sussex NHSFT National data

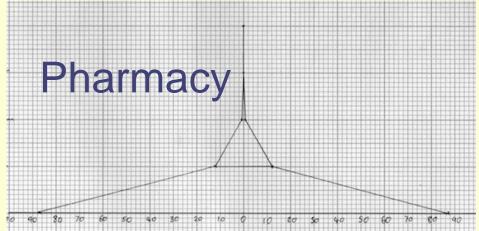
Different Departments....



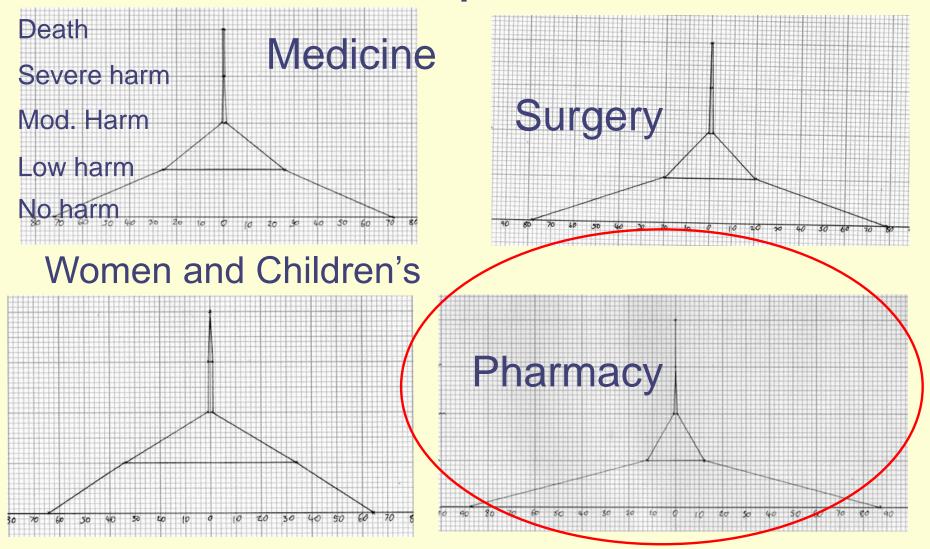


Women and Children's

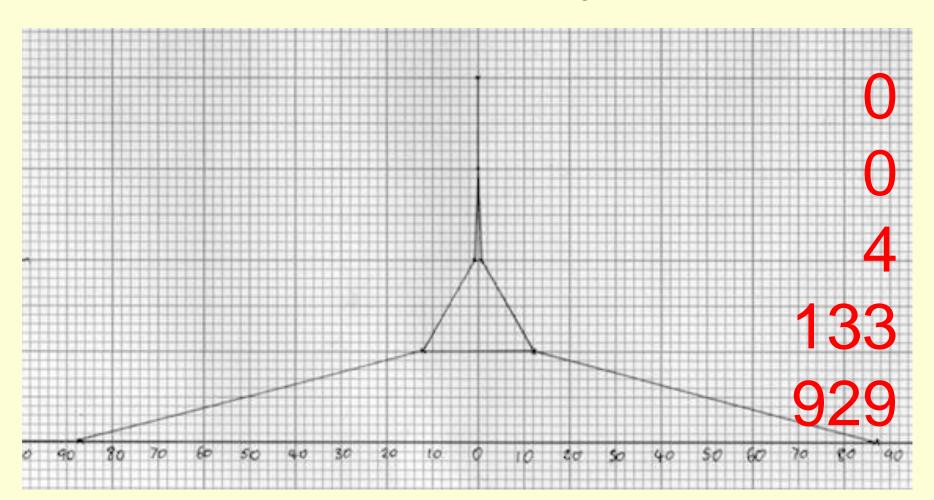




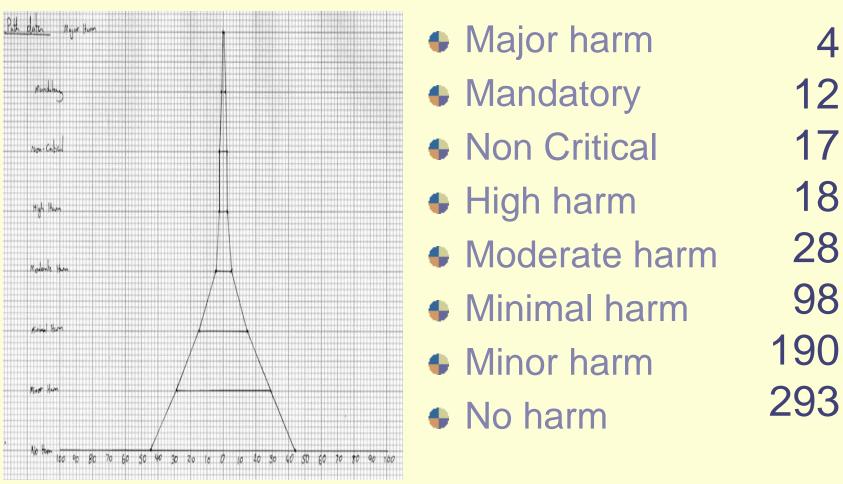
Different Departments....



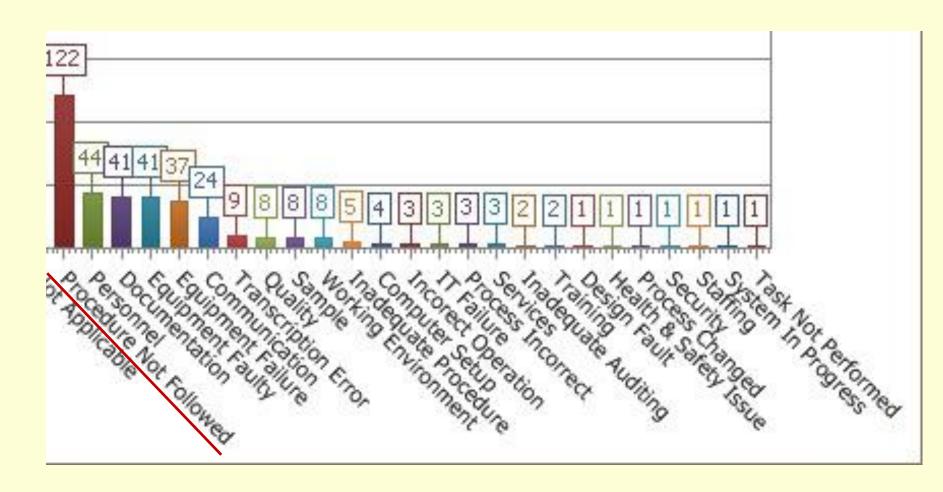
Pharmacy



Pathology (Qpulse)

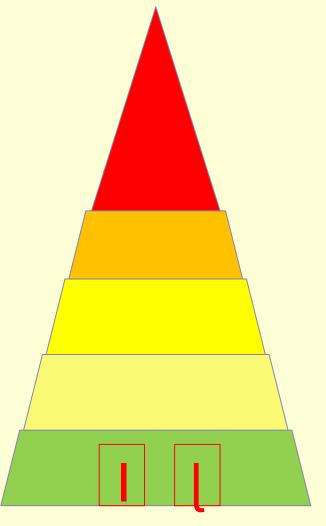


Why?

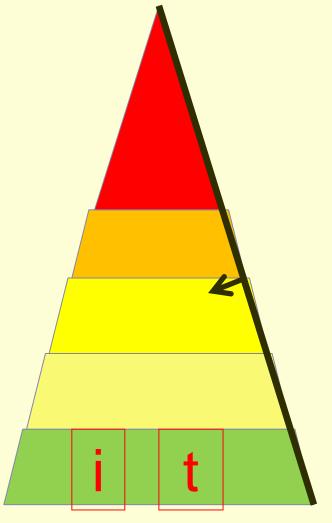


50 Days of rejected samples

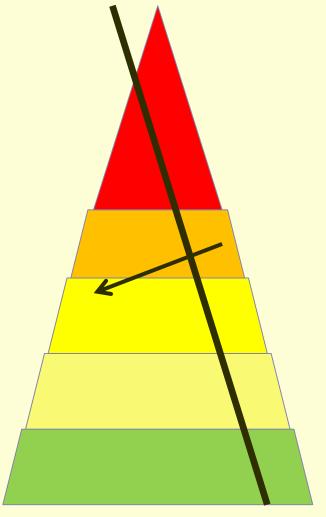
Error category	Number of times recorded
Name incorrect / illegible	41
Hospital number incorrect / missing	37
Insufficient sample	32
Date +/- Time incorrect / missing	30
No clinical details provided	28
Duplicate request	25
Date of birth incorrect / missing	24
Haemolysed sample	14
Addressograph incorrectly used	10
No clinician name / signature	9
Sample incorrect (eg. wrong sample tube)	6
No sample sent	6
Incorrect form used	4
Sample taken <30 mins apart	3
No patient label	2
Two people have filled out form	2
Sample leak	1
Tube expired	1
Patient not admitted on computer	1
Total number or errors	276



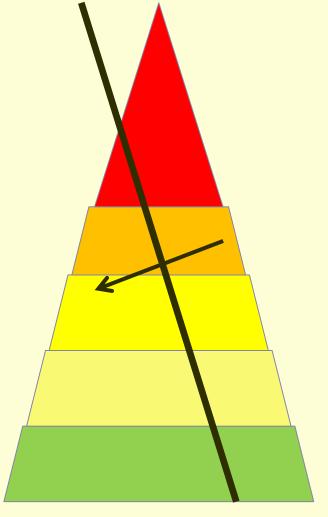
30 day Mortality



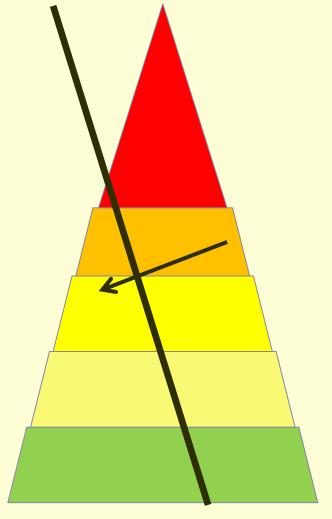
30 day Mortality



30 day Mortality



30 day Mortality



30 day Mortality

Progress

- Improvements seen with new form, threats and retraining policy
- WBITs still happening but less frequent

WBIT example

♣ A Dr went to the bedside of the patient that he believes was the patient he intended to bleed, he did no ID checks, he did not have a request form, he left the patient and labelled the sample at the nurses' station with the notes of another patient.

WBIT example

A Dr went to the bedside of the patient

I confirm that I have:-	Signature
Asked the patient to state first name, surname and date of birth	
Checked the patient details match the patient's wristband	
Checked the wristband details match those on the request form	
Labelled the tube befare leaving patient's bedside	
Signed tube as person drawing sample	
I have bled only one patient and have not pre-labelled the tube	
I have not taken two cross match samples at the same time	
Print Name	

WBIT example 2

- Specialist Trainee
- Lab noticed change in blood group from O pos to A pos compared with history
- Individual identified and asked to
 - cooperate with investigation
 - Not take transfusion samples before retraining
- No engagement

WBIT 2

- TPs repeatedly asked for WBIT form & retraining by TPs and Haematologist
- Individual happy that they knew how the mistake was made and not to do it again.
- Also happy not to take transfusion samples
- Rotating to another hospital soon

WBIT 2

- Case brought to HTC meeting
- Plan
 - Contact ES
 - Contact Deanery ensure retraining at next hospital
- ES meeting -
 - finally WBIT form received!
 - Trainee rotated before retraining

So...

- Clear need to promote meticulous practice
- Hope that vein to vein technology will help in transfusion
- What about all the other areas of NHS practice?

1931

2018

88% of accidents are caused by 'unsafe act by an individual'

85.5% of the 3230 incidents reported to SHOT were caused by error





1931

2018

88% of accidents are caused by 'unsafe act by an individual'

85.5% of the 3230 incidents reported to SHOT were caused by error





