

SHOT - THE FUTURE

Hannah Cohen

SHOT 6th Annual Progress Meeting
in association with the CMO's NBTC
26 September 2003

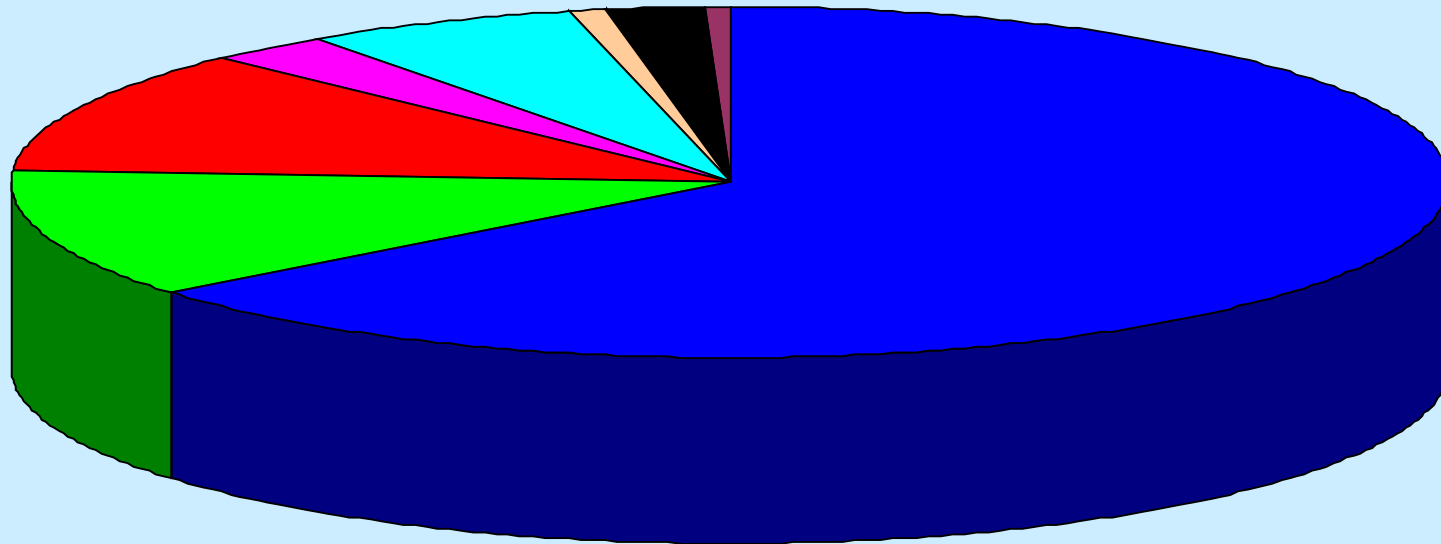
ACKNOWLEDGEMENTS

- SHOT office staff
 - Hilary Jones
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- SHOT Steering Group and Working Group
- Participating hospitals
- UK Blood Services
- Elizabeth Love and Dorothy Stainsby
- Lorna Williamson

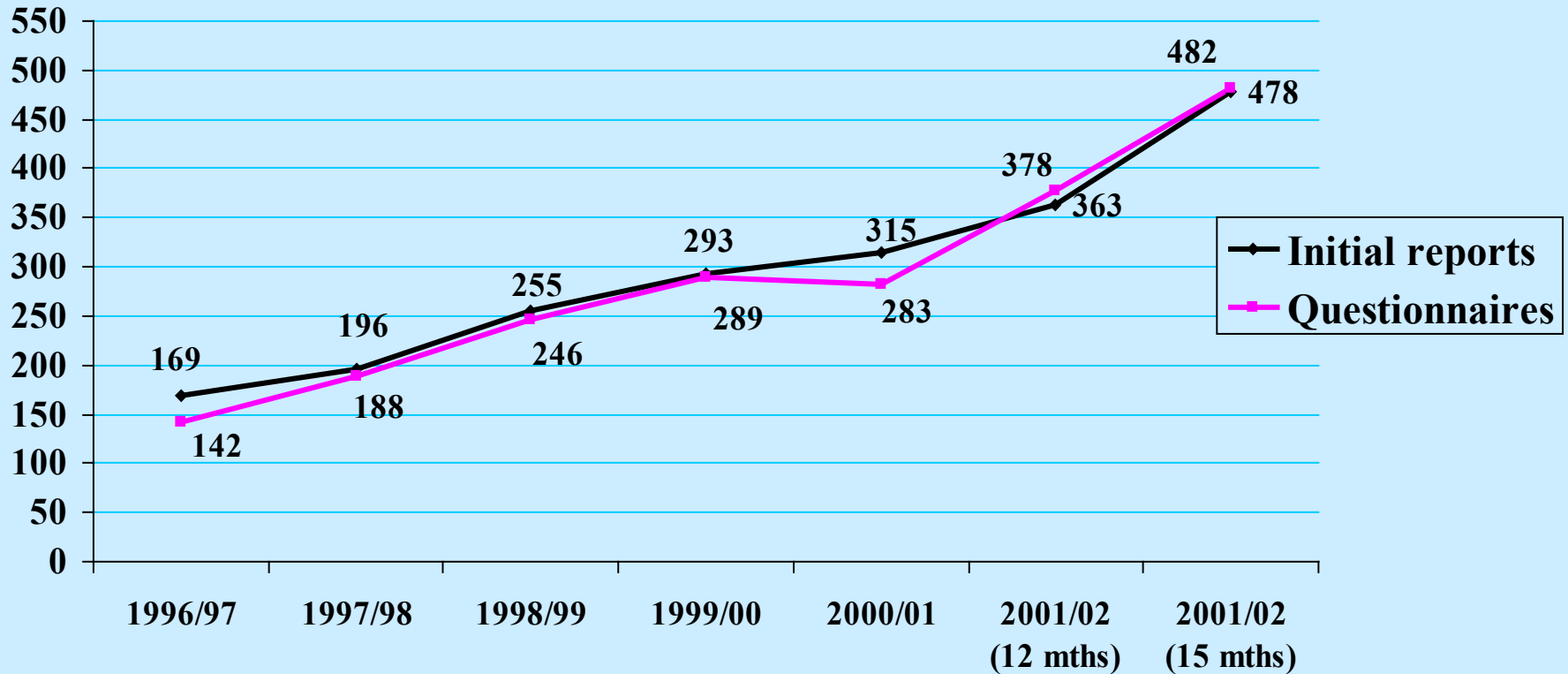
1996/97-2001/02 (n=1630)

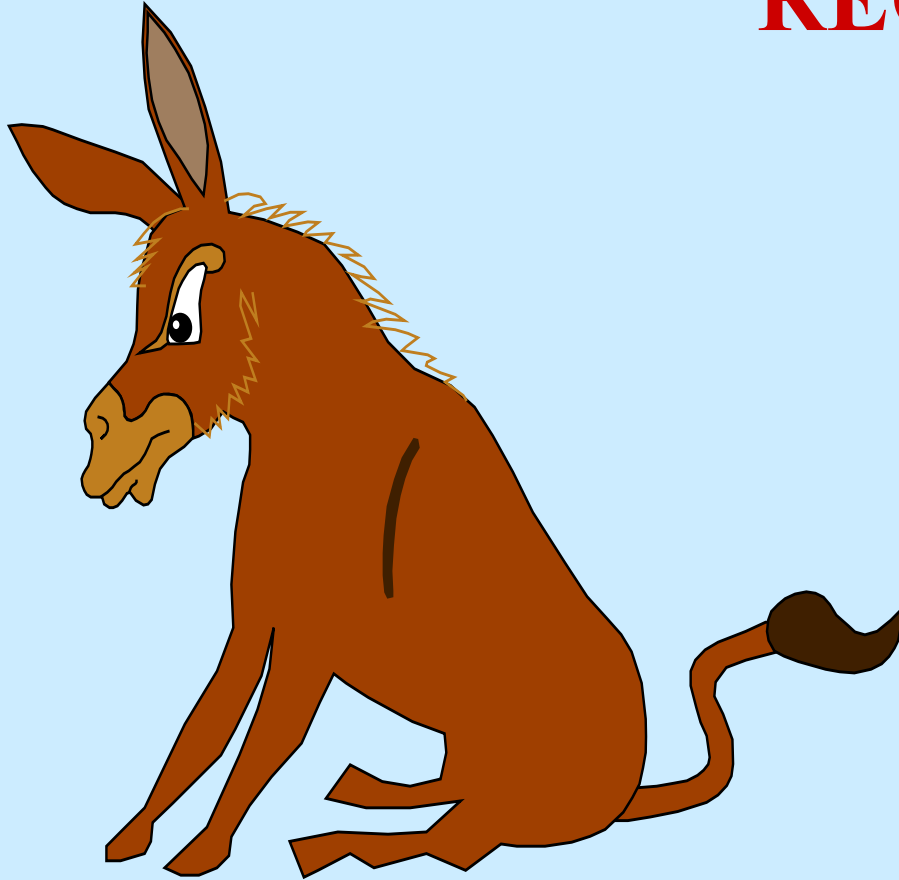
Blood transfusion errors: biggest category reported to SHOT (64%)

■ IBCT (1045) 64.1%	■ ATR (194) 11.9%	■ DTR (188) 11.5%	■ PTP (43) 2.6%
■ TRALI (103) 6.3%	■ TA-GVHD (13) 0.8%	■ TTI (37) 2.3%	■ Unclassified (7) 0.4%

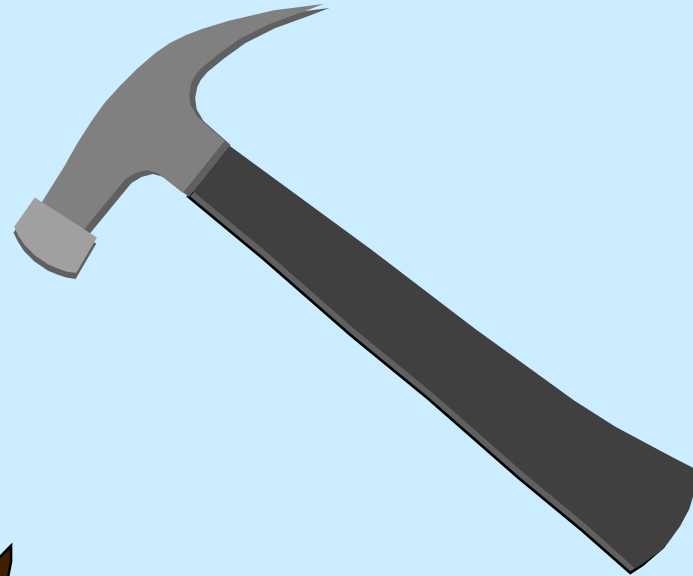


INCREASES IN REPORTING YEAR BY YEAR





SHOT RECOMMENDATIONS!



Health Service Circular

Series Number: **HSC 2002/009**
 Issue Date: **04 July 2002**
 Review Date: **04 July 2005**
 Category: **Public Health**
 Status: **Action**

sets out a specific action on the part of the recipient with a deadline where appropriate

Better Blood Transfusion

Appropriate Use of Blood

For action by:

Health Authorities (England) - Chief Executive
Health Authorities (England) - Directors of Public Health
NHS Trusts - Chief Executives
Primary Care Trusts - Chief Executives and Main Contacts

For information to:

Chief Medical Officers Wales/Scotland/Northern Ireland
Chief Executive: National Blood Authority
Medical Director: National Blood Authority
Nursing Statutory Bodies - Chief Executives
Professional Associations and Royal Colleges
Regional Directors of Public Health
Regional Directors of Performance Management
Regional Nurse Directors

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Additional copies of this document can be obtained from:

Department of Health
 PO Box 777
 London SE1 6XH
 Fax 01623 724524

It is also available on the Department of Health web site at

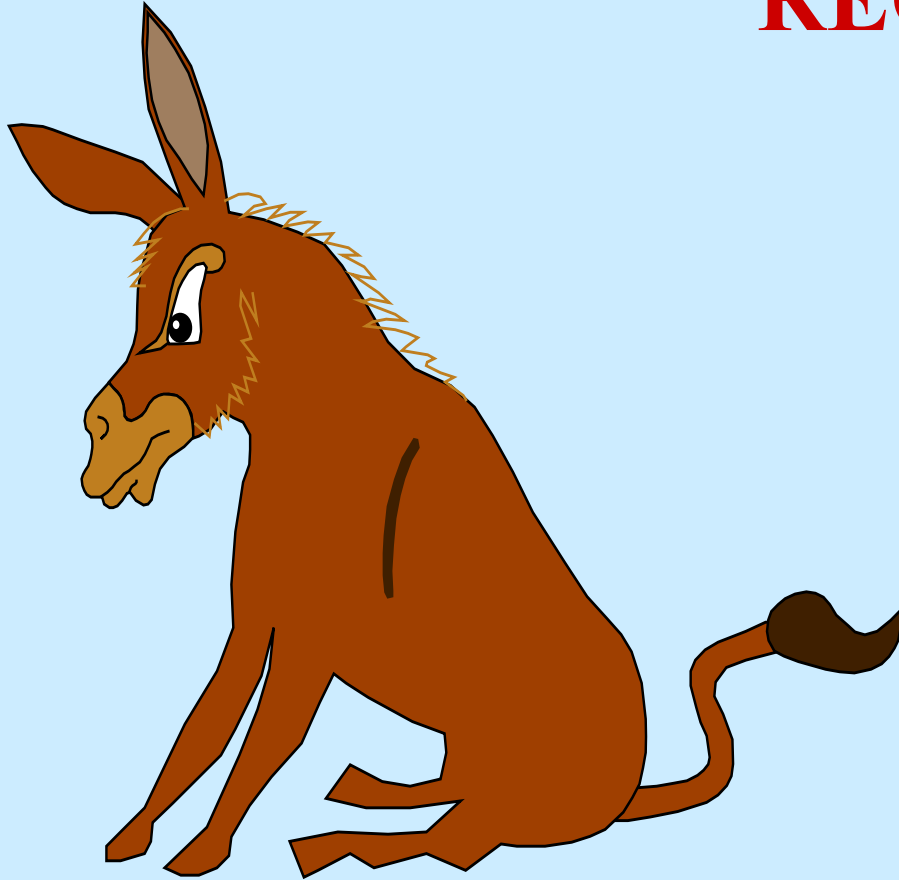
<http://www.doh.gov.uk/publications/coinh.html>

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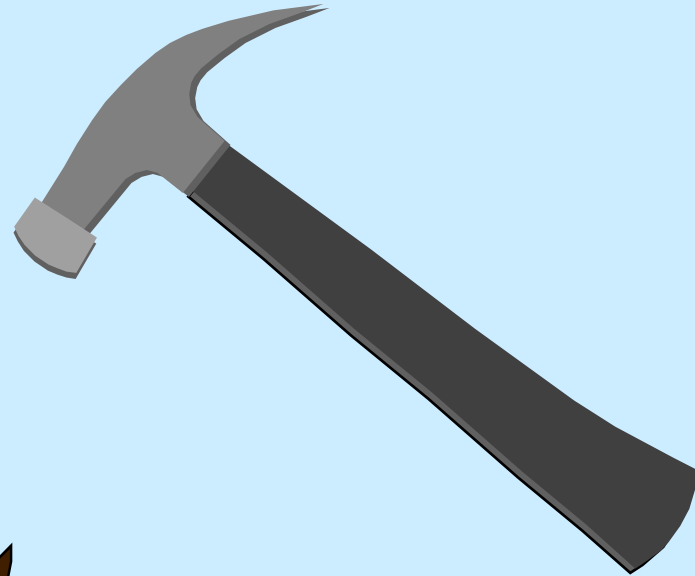
“(Hospital) Trusts involved in blood transfusion should establish a Hospital Transfusion Committee with the authority and resources to take the necessary actions to improve transfusion practice”

by Dec 2002





HSC 2002/009 RECOMMENDATIONS!



Better Blood Transfusion

“Ensure participation in the SHOT scheme and that timely reporting is in place”

Action: Chief Executives ... by April 2003

To encourage active participation:
SHOT recommends an open learning and improvement culture

PARTICIPATION IN SHOT - I

	ELIGIBLE HOSPITALS	REPORTING HOSPITALS	'NIL TO REPORT' HOSPITALS	NO. OF INITIAL REPORT FORMS
Year 1	424	94	-	169
Year 2	424	112	164	197
Year 3	432	132	204	252
Year 4	426	155	150	291
Year 5	413	199	180	315
Year 6	405	187	191	478*

* during this 15 month reporting period

PARTICIPATION IN SHOT - II

	PARTICIP. DEFN 1	PARTIC. DEFN. 2	AVG. NO. REPORTS / REPORTING HOSPITALS	AVG. NO. REPORTS / ALL ELIGIBLE HOSPITALS
Year 1	-	22%	1.8	0.4
Year 2	65%	26%	1.8	0.5
Year 3	78%	31%	1.9	0.6
Year 4	72%	36%	1.9	0.7
Year 5	92%	48%	1.6	0.8
Year 6	93%	46%	2.6	0.9 *

*This is based on an equivalent 12 month period

to obtain accurate information on participation, from 1 January 2003:

- Data collection
 - rigid system of follow up to obtain completed questionnaires
 - confidential pin number for each hospital
 - inked to level of blood issues, blood stocks management scheme data, ?Serology NEQAS
- Participation defined to include only those hospitals which submit completed reports
- Denominator data: transfusions within and out of hours
SWG pilot study

1996-2002

Serious Hazards of Transfusion

SHOT

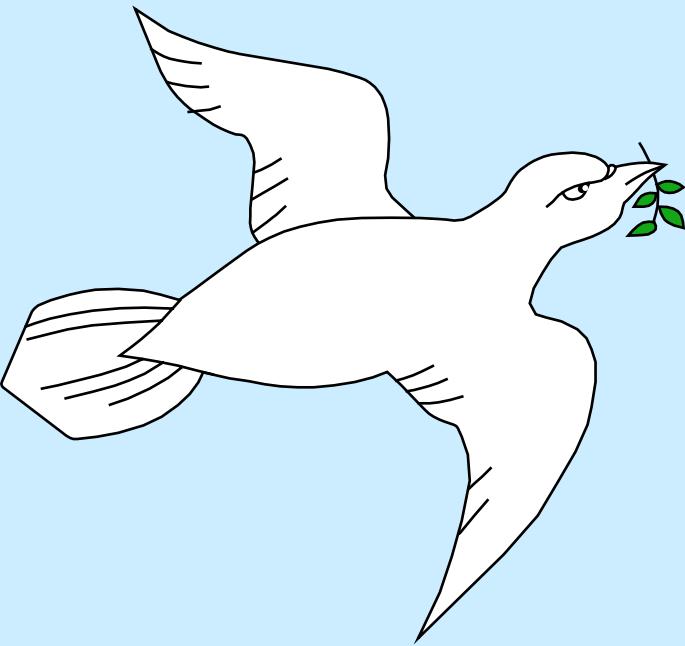
total components issued ~20 million

Risk of serious hazard (all categor)	1630	1 in 12,000
Risk of major morbidity (all categor)	200	1 in 100,000
Risk of death (all categories) (definite/probable/possible)	78	1 in 256,000
Risk of IBCT	1045	1 in 19,000
Risk of major morbidity from IBCT	69	1 in 290,000
Risk of death from IBCT	15	1 in 1.3 million
Risk of TRALI	103	1 in 194,000
Risk of major morbidity from TRALI	67	1 in 299,000
Risk of death from TRALI	25	1 in 800,000

SUSTAINED ACTIVE PARTICIPATION IN SHOT REQUIRES DEMONSTRATION OF ITS EFFECTIVENESS

- **Clear decision making pathways for establishing priorities in blood safety**
- **A national unified body, with appropriate relevant expertise and resource, to advise government on transfusion safety, e.g. MSBT+**
- **SHOT data should be used to guide blood safety policy**

IBCT QUESTIONNAIRE REVIEW!



- Make forms more user-friendly
- Collaborative work with NPSA
- Inland Revenue form as model
- Free text sheet on front of questionnaire for resume of event
- Start 1 January 2004

- RCA in selected cases (NPSA)

REDUCTION OF IBCT: NEW INITIATIVES

- BCSH Guidelines
 - Update of guidelines on blood administration
 - Revision of hospital computing guidelines
 - Guidelines for avoidance of transfusion mediated GVHD
- IT Working Group of CMO's NBTC
 - Remit: improvement of the safety and effectiveness of transfusion through the use of IT
 - Collates information on IT field projects
 - Design Authority specification for the National Programme for IT
 - NO blood transfusion representation

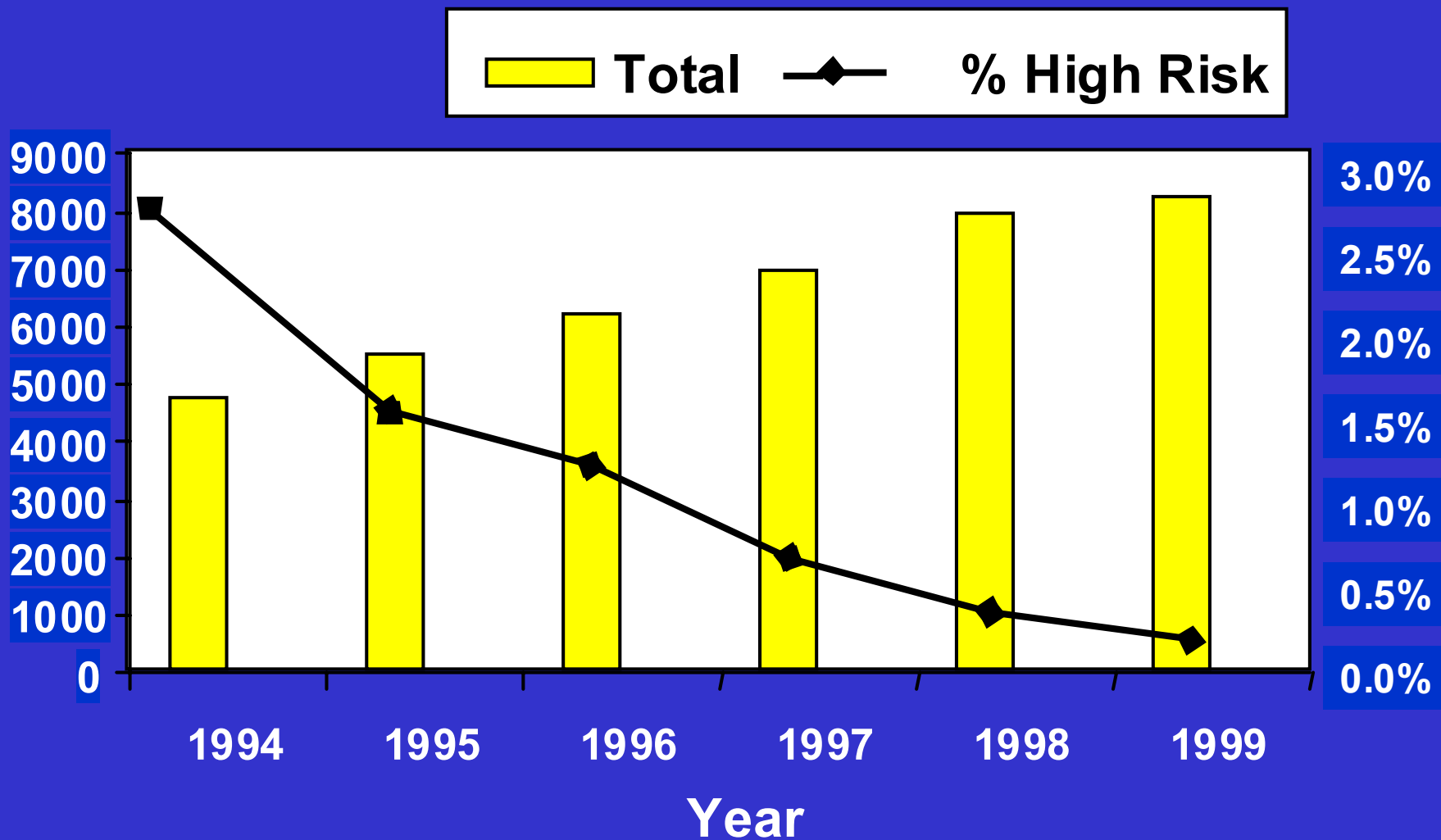
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“NEAR MISS” EVENTS

- More numerous than “wrong blood” transfusions
- Show
 - that systems are capable of picking up errors
 - where systems are flawed so that they can be redesigned to minimize human error
- Major source of information to evaluate changes to improve transfusion safety
- Only 709 reports from 41% of eligible hospitals
- We are losing opportunities to learn from each other
- “Near-miss” reporting = learning and improvement culture

Air Safety Reports: Volume & Risk



To enable full investigation of ATR and TRALI

- Early evaluation by consultant(s) at hospital
- SHOT specialist panel (haematologist, immunologist and anaesthetist/intensivist) to review all cases
- ?Open, non-anonymised reporting
NB some cases where FFP used inappropriately

TRALI PREVENTION - OPTIONS

- FFP from untransfused male donors
- Platelets - suspension in 'male plasma', screening female apheresis donors, platelet additive solutions
- CMO's NBTC's recommendations on FFP
 - single unit, virally inactivated (MB), non-UK untransfused males if born after 1 January 1996
 - pooled virally inactivated plasma from populations at low risk of SE
 - use untreated single donor/UK sourced products if
 - a) cannot meet demand (main consideration) or
 - b) for older populations who receive small volumes

TRANSFUSION-TRANSMITTED INFECTIONS

- Since 1995 bacterial contamination has accounted for 26/40 (65%) of TTI incidents responsible for 6/7 deaths
- Platelets implicated in 22/26 cases, skin pathogens confirmed in 8 and likely in some others

Bacterial infection remains an avoidable cause of death and major morbidity and merits increased efforts to prevent bacterial contamination of blood components

EUROPEAN COMMISSION DIRECTIVE 2002/98/EC

- “...Adverse reactions and events related to collection, testing, processing, storage and distribution of blood and blood components”
- Does not include “wrong blood” reporting but only minimum standard for adverse event reporting
- Comes into force 8 February 2005 - UK Law
- SHOT/EHN meeting February 2005

?SHOT AS A MODEL FOR

- Tissues
- Stem Cells
- Bone Marrow Transplants

POINTS FOR DISCUSSION

- **Implementation of SHOT recommendations**
- **Implementation of HSC 2002/009**
- **Open, non-anonymised reporting**
 - for immunological complications
 - for IBCT?
- **Investigation and prevention of TRALI**
- **Fresh Frozen Plasma and Risks**
- **A national unified body to advise government on priorities for improvements in transfusion safety**