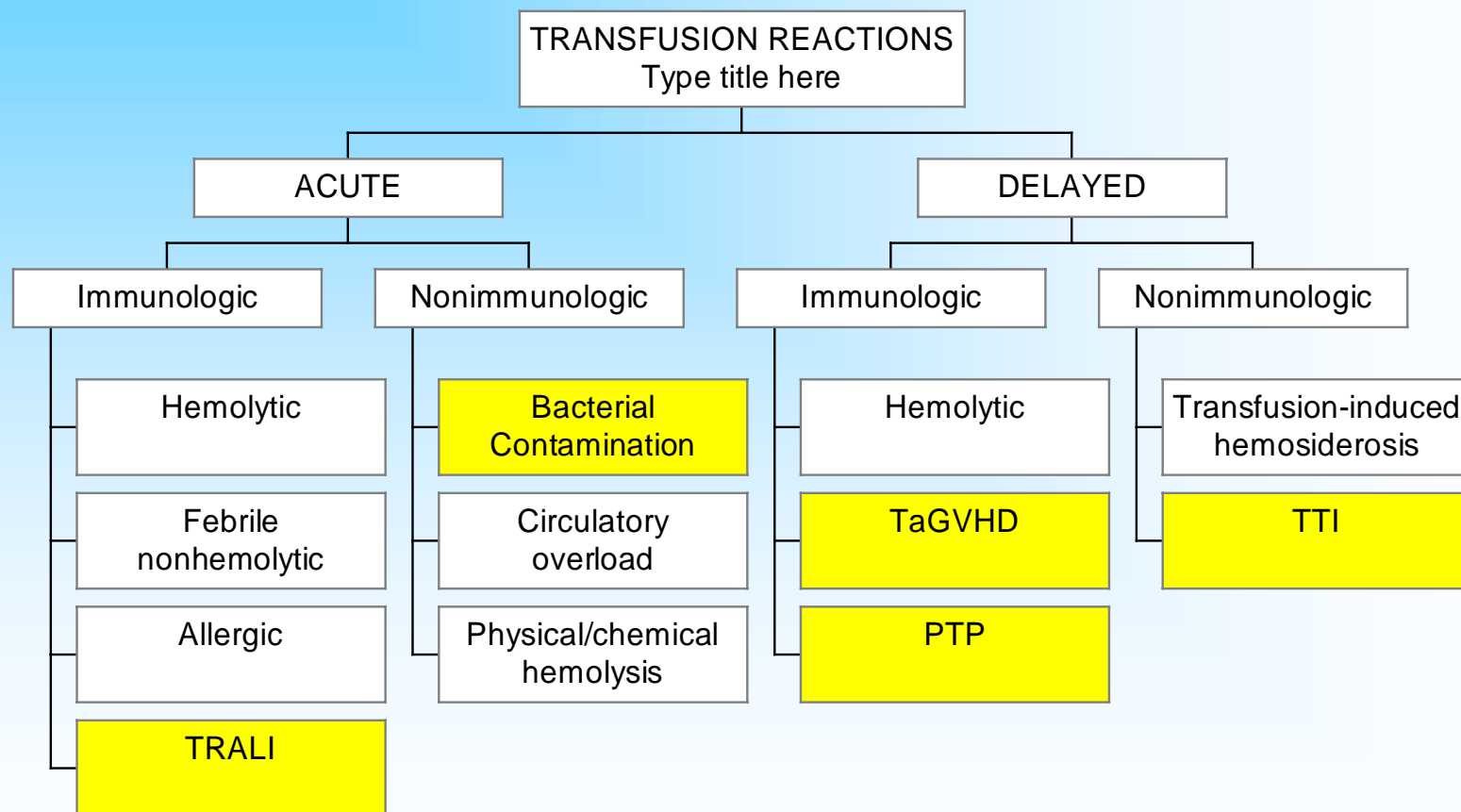


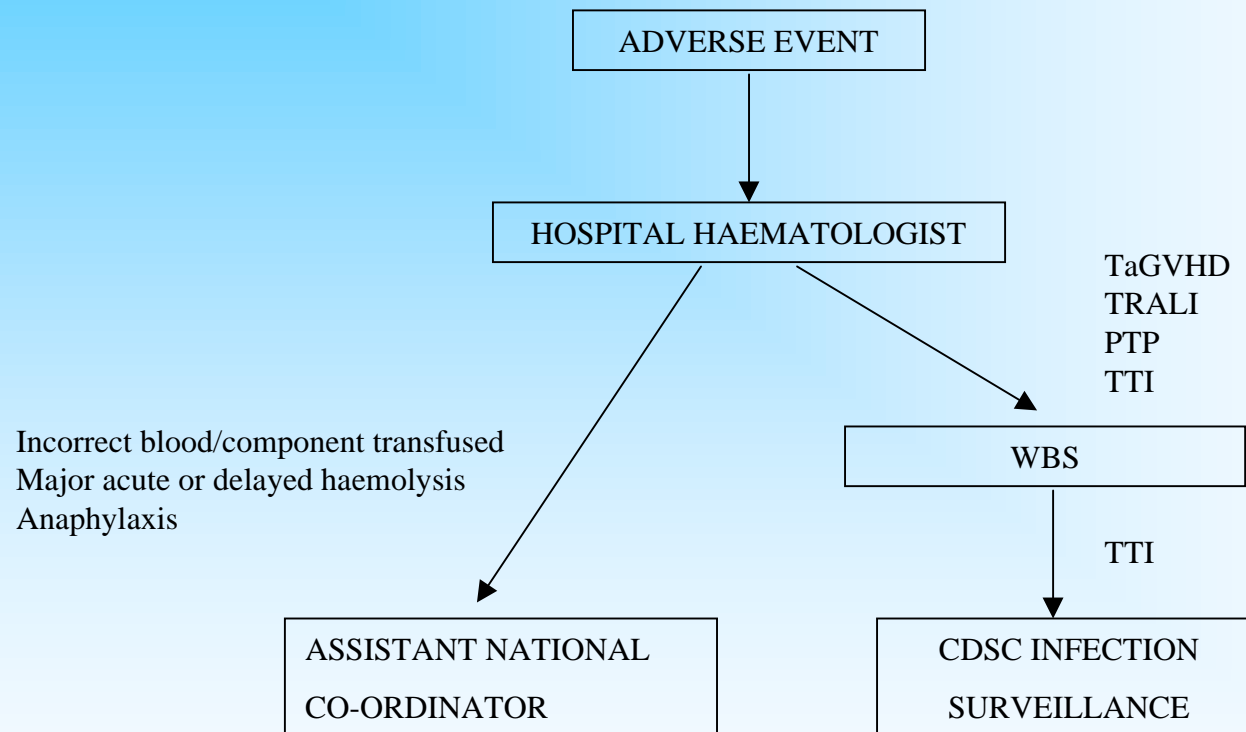
# KEEPING BLOOD SERVICES IN THE LOOP

Dr Ridheesh Ahya  
Consultant Haematologist  
Welsh Blood service

# Adverse effects of Transfusion



# Reporting



## Transfusion Related Infections

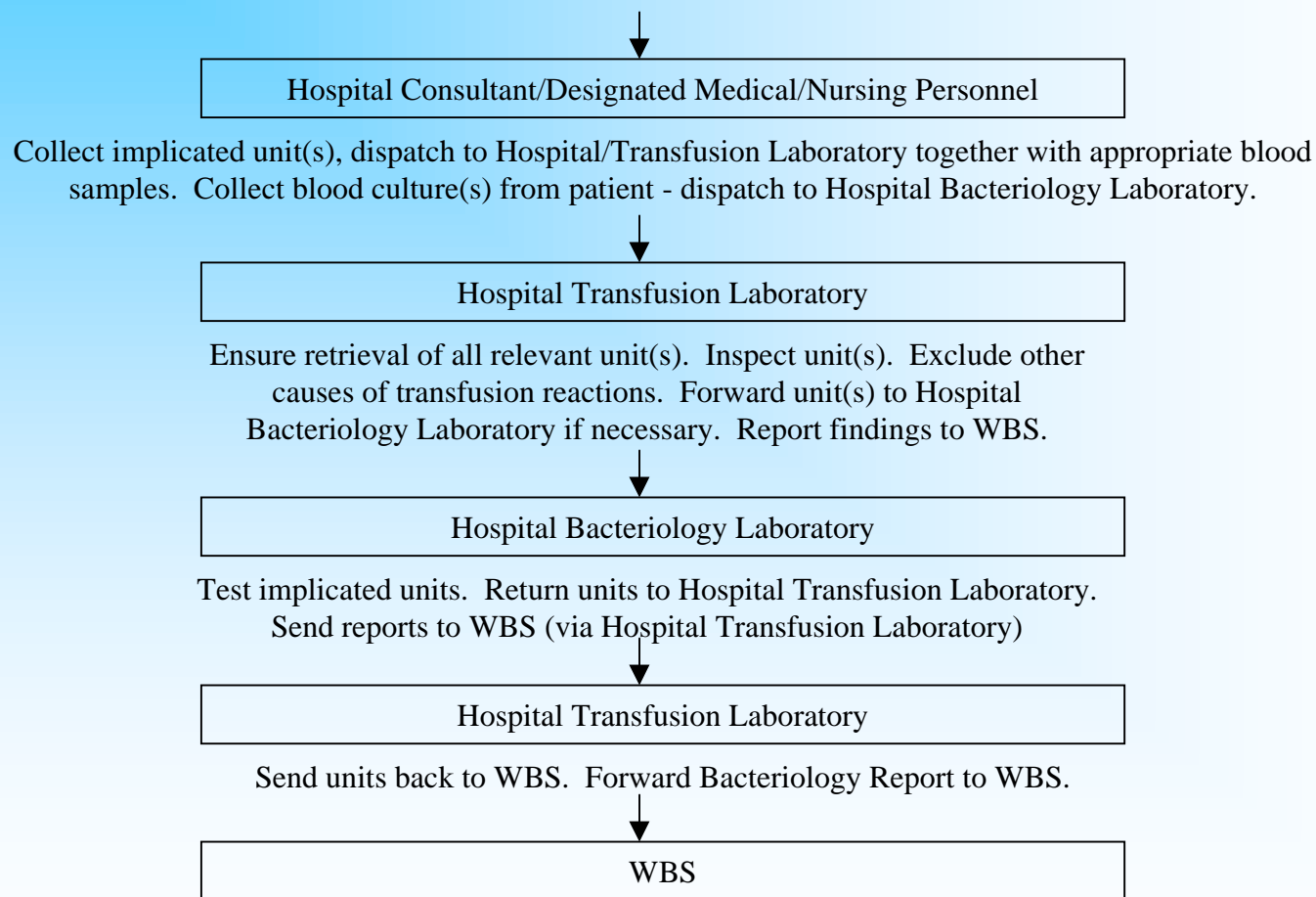
<b>Examples of TTI</b>		
<b>Potentially Resulting in Chronic Disease</b>	<b>Resulting in Transient Illness without Long-Term Sequelae or in Asymptomatic Infection</b>	<b>Risk Exceedingly Low or Theoretical Only</b>
Hepatitis B Hepatitis C Human immunodeficiency virus Human T-cell lymphotropic virus Cytomegalovirus Chagas' disease Syphilis	Hepatitis A Hepatitis C TT virus Epstein-Barr virus	Creutzfeldt-Jakob disease Lyme disease Human herpesvirus-8 Parvovirus B19 Erlichiosis Babesiosis

# Bacterial Contamination

- Fever with rigors
- DIC
- ARF
- Shock
- Skin flushing
- C/S and IV antibiotics
- WBS -routine monitoring of all platelets

# Flow chart for Bacterial Reaction investigation

## Bacterial Investigation of a Transfusion Reaction



Carry out further investigations on implicated unit(s) and donor(s) as appropriate.

## **Bacterial Reaction**

### **Role of Hospital Transfusion Laboratory**

The role of the hospital transfusion laboratory is to co-ordinate the further investigation of all significant transfusion reactions. Where a bacterial cause is thought to be possible/likely it should:

- Ensure that all implicated units are retrieved.
- Inspect implicated units for any colour abnormality, gas, haemolysis, clots, leaks, pinholes or other defects and record findings.
- Dispatch all units to the hospital microbiology department (without delay) for sampling/testing and ensure that units are returned afterwards.
- Exclude other possible causes of transfusion reactions.
- Inform the Welsh Blood Service that a possible bacterial reaction has occurred and return all implicated units to the Welsh Blood Service after microbiological testing.
- Copy all relevant tests/reports to the Welsh Blood Service when available.

**Note: All implicated units must be transported/stored at 4°C.**

# Keeping Blood Services in the Loop

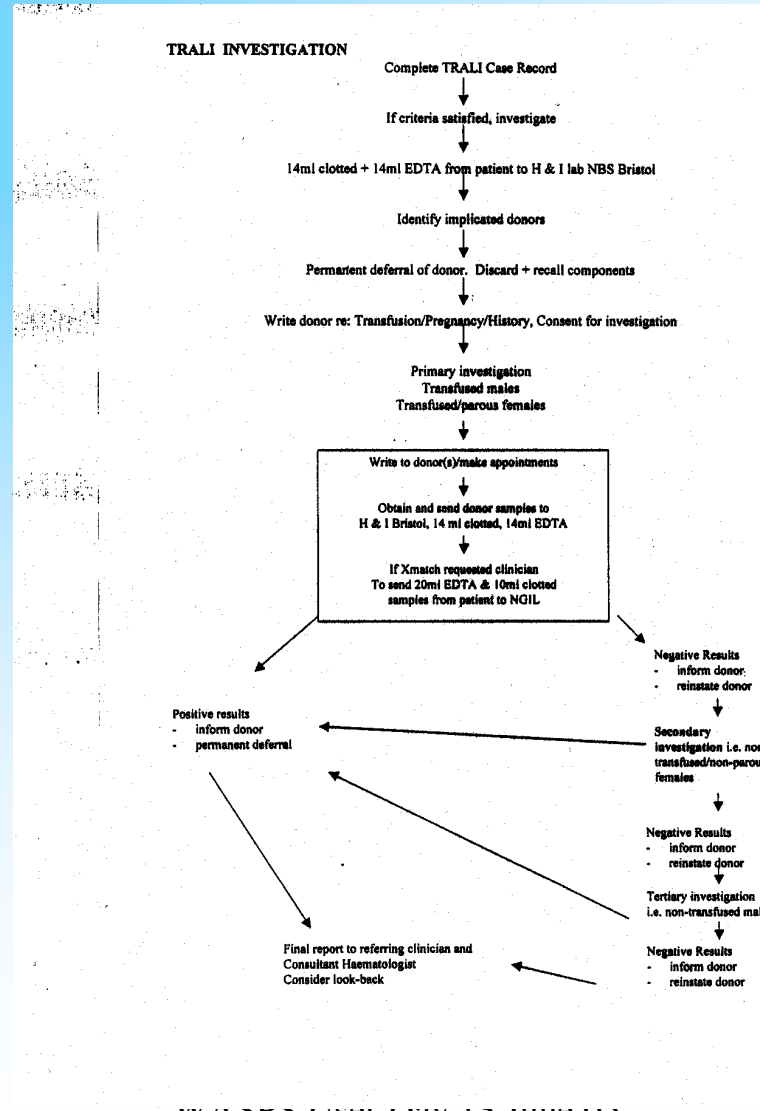
<u>POST TRANSFUSION INFECTION ENQUIRY</u> (WBS)	
<u>PART 1</u>	<u>CLINICAL DETAILS</u>  PATIENT'S NAME  TYPE OF TRANSFUSION REACTION  DATE OF TRANSFUSION  ONSET OF TRANSFUSION REACTION  DONATION NUMBERS INVOLVED  1. .... 2. .... 3. ....
<u>PART 2</u>	RECALL OF PRODUCTS ACTIONED      DATE .....      INITIALS.....
<u>PART 3</u>	<u>RESULTS OF FOLLOW-UP TESTS</u>  DONATIONS  1. .... 2. .... 3. ....  DATE.....      INITIALS .....

# Transfusion Related Lung Injury

- Immediate Respiratory s/s
- CXR-bilateral infiltrates
- 90% donor WBC abs, 10% Pt WBC abs.
- Complex laboratory investigations
- WBS- Male only plasma for clinical use



# Keeping Blood Services in the Loop



# Post Transfusion Purpura

- Severe thrombocytopenia
- Purpura
- Platelet alloabs usually anti HPA-1a
- IvIgG and or Plasmapheresis
- Platelets if life threatening bleeding

# Transfusion Associated Graft verses Host Disease

- Marrow & Liver failure
- GI/Skin s/s
- Very high mortality
- No effective Rx
- Leucocyte filtration does not offer protection
- Prevention-Irradiated cellular components to “at risk patients”.

## Keeping Blood Services in the Loop

### Welsh Blood Service Notifications of Possible Transfusion Transmitted Reactions from January 03 to May 05

Category	Hospital	Soundex	Date Notified	Transfusion Period	Donors	Outcome
Hep B	Prince Charles	ST-520	22/12/03	Jan-Aug 2003	22	Non implicated
Hep B	UHW	TJ-500	16/12/03	25/07/03	4	1 donor with evidence of past but not current infection
Hep C	Prince Charles	JGF-600	08/06/04	24/12/03	2	None implicated
HIV	-	-	-	-	-	-
HTLV	-	-	-	-	-	-
Syphilis	-	-	-	-	-	-
CMV	-	-	-	-	-	-
Malaria	-	-	-	-	-	-
VCJD	-	-	-	-	-	-
TRALI	POW	-	27/5/03	27/5/03	1	Not fulfil criteria for investigation
TRALI	UHW	-	16/6/03	14/6/03	2	Not fulfil criteria for investigation
TRALI	Singleton	-	8/12/04	8/12/03	3	Not fulfil criteria for investigation
TRALI	POW	-	20/12/04	16/12/03	5	Not fulfil criteria for investigation
PTP	UHW	-	23/6/03	23/6/03	Several	Negative
Bact	Singleton	-	10/1/05	17/12/04	1	Negative
Bact	Morrison	-	15/2/05	13/2/05	1	Negative
Bact	RGH	-	04/4/05	30/3/05	2	Negative
TAGUID	-	-	-	-	-	-