

Case 2

RM

- 9 month old girl
- Unwell 12 - 24 hours
- Febrile and not drinking

- No siblings
- No day care
- Parents conscientious objectors to immunisation

Case 2

- Temp 39.3
- awake, drowsy
limp
- Coryzal, RR
45/min HR
190/min
- Chest clear
- No focus



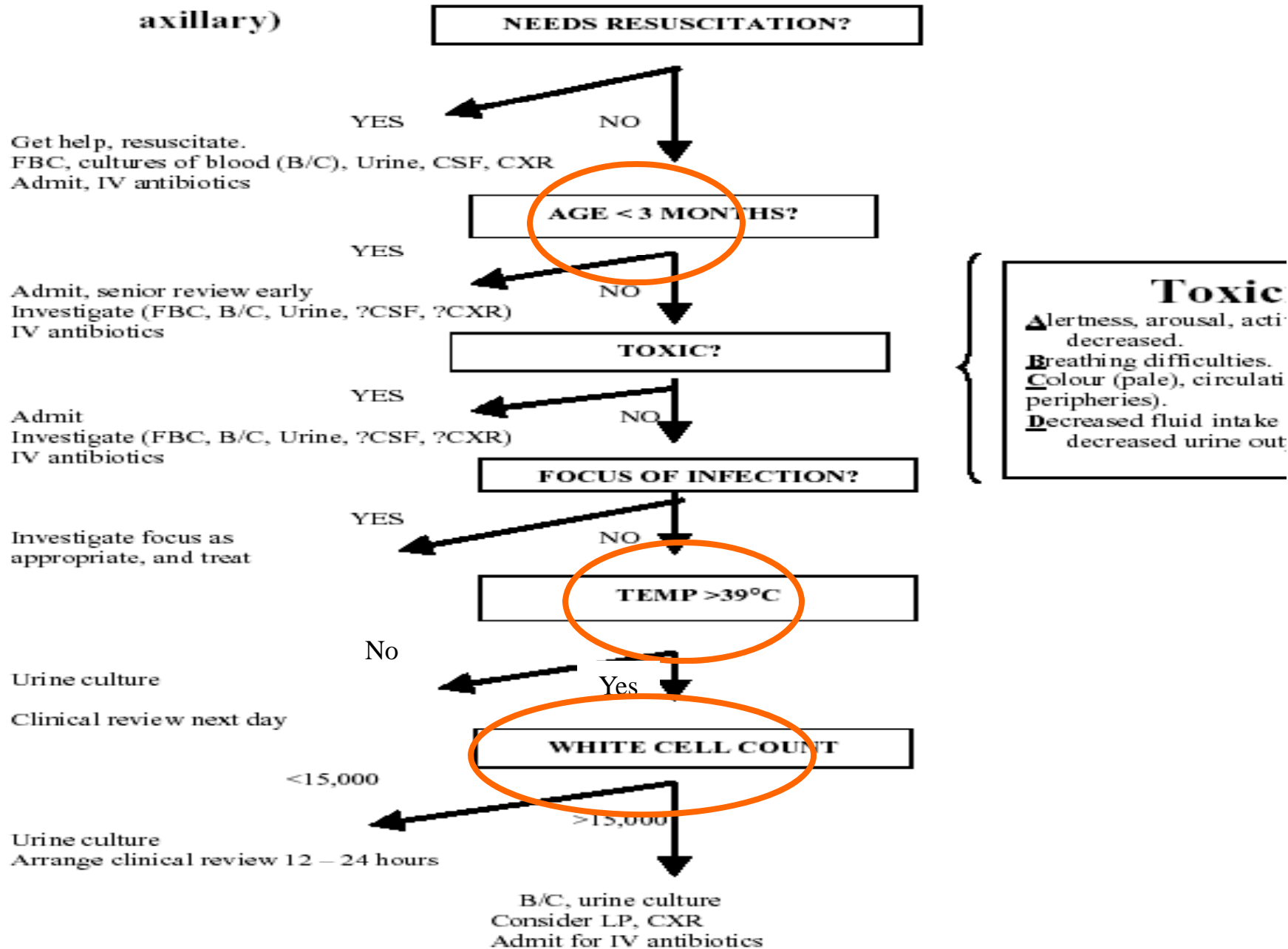
Provisional diagnosis

- Febrile, looks unwell, no obvious focus
- Coryzal and blanching rash

Differential diagnosis

- ?Viral infection
 - enterovirus (blanching rash)
 - HHV6/7 (Roseola infantum)
- Not immunised...?
 - Rubella
 - Measles

FLOWCHART FOR CHILD <3 YEARS OLD WITH FEVER (>38°C

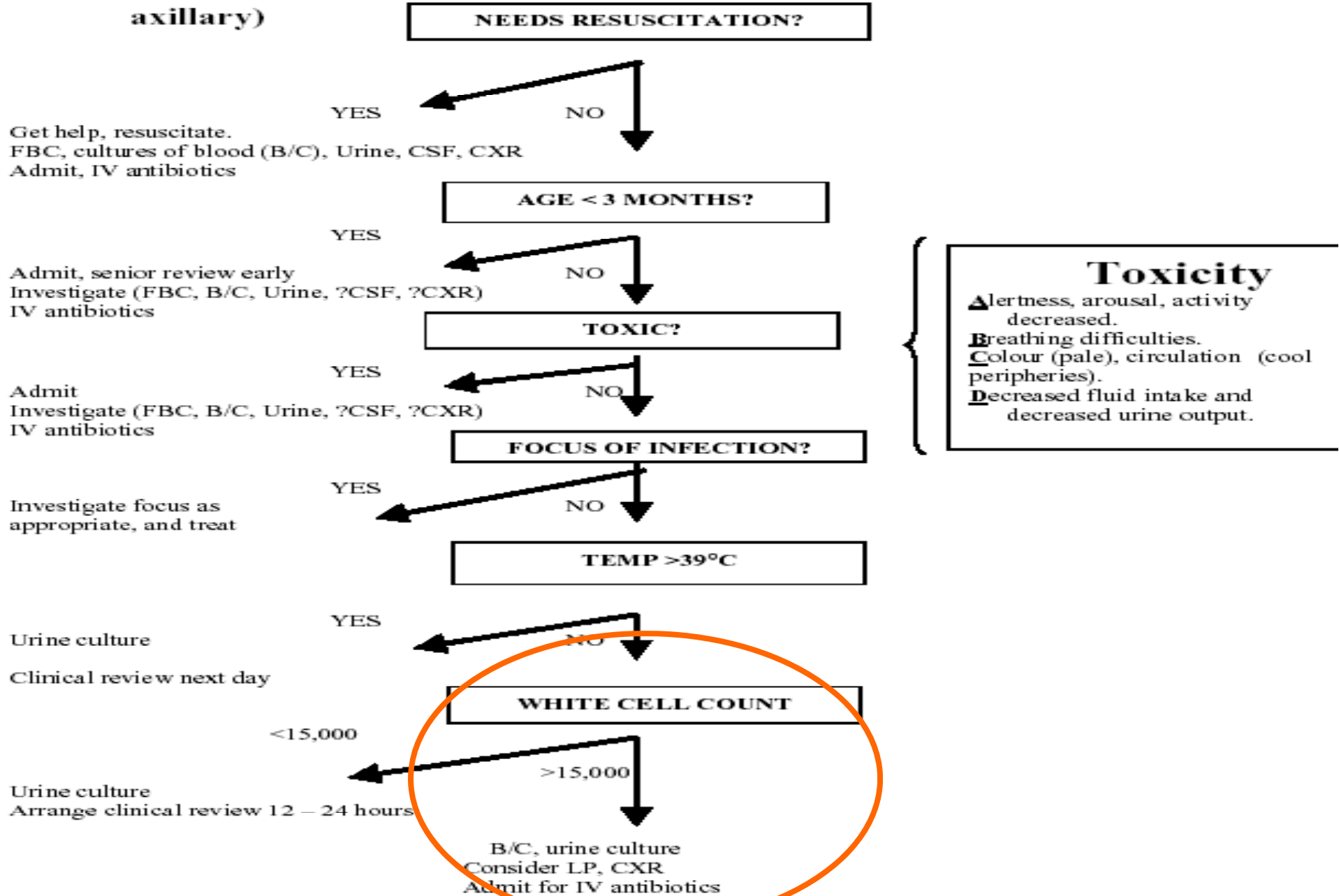


Case 2

RM

- Bloods, urine and blood culture
- WCC 20,000
 - neutrophils 18,000
- Urine
 - WCC 10-100
 - RCC 10-100
 - no organisms

FLOWCHART FOR CHILD <3 YEARS OLD WITH FEVER (>38°C





But rash has evolved over past hour....



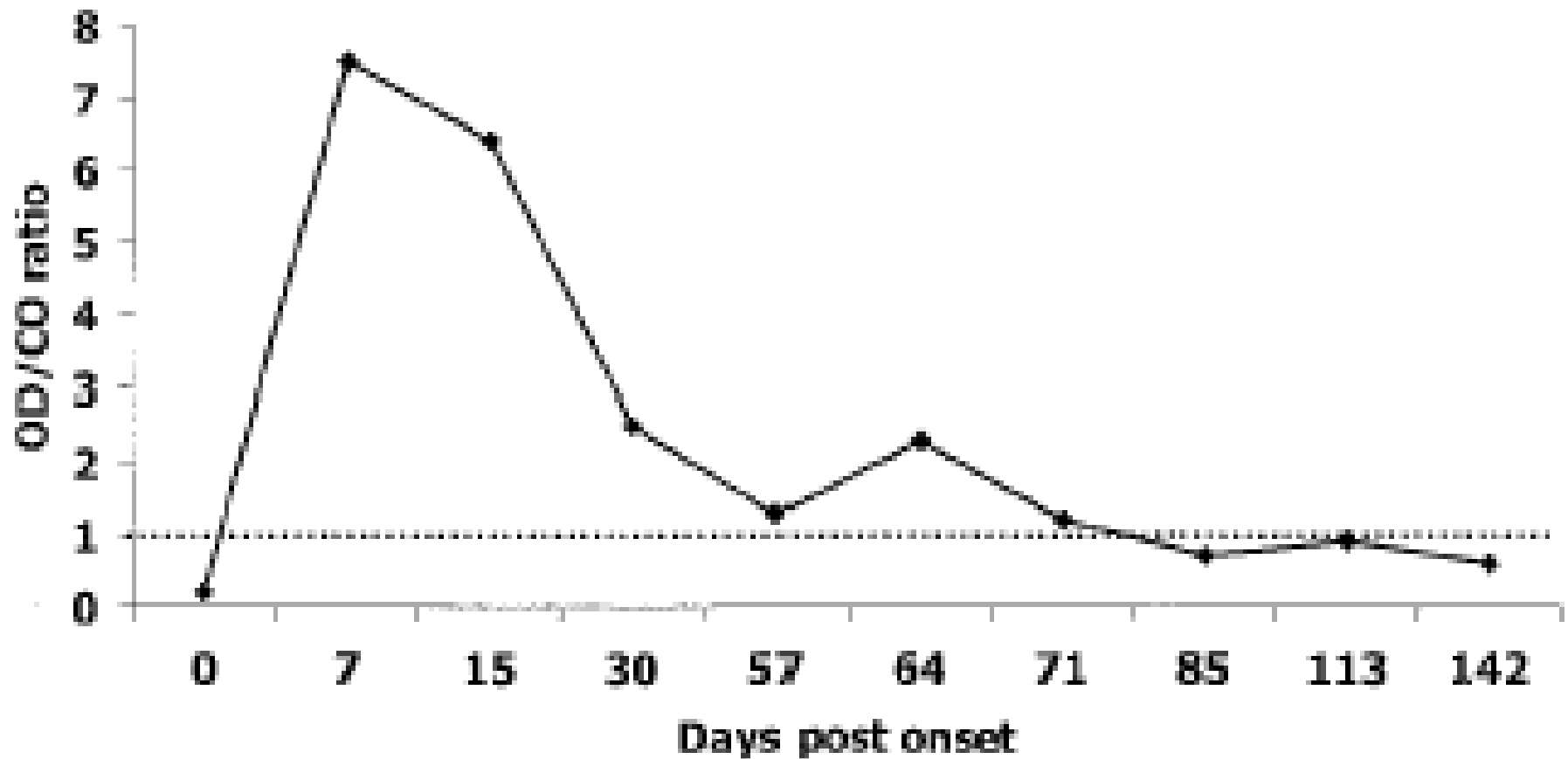
Provisional diagnosis: Meningococcal septicaemia

Case 2 Progress

- IV penicillin and single dose Ceftriaxone
- Child unwell requiring intensive care for 48 hours
- No lumbar puncture performed

- Blood culture comes back positive for *Neisseria meningitidis* serogroup B
- Meningococcal IgM negative on day 1 blood repeated and positive Day 5

Neisseria meningitidis IgM Days Post Positive CSF Culture

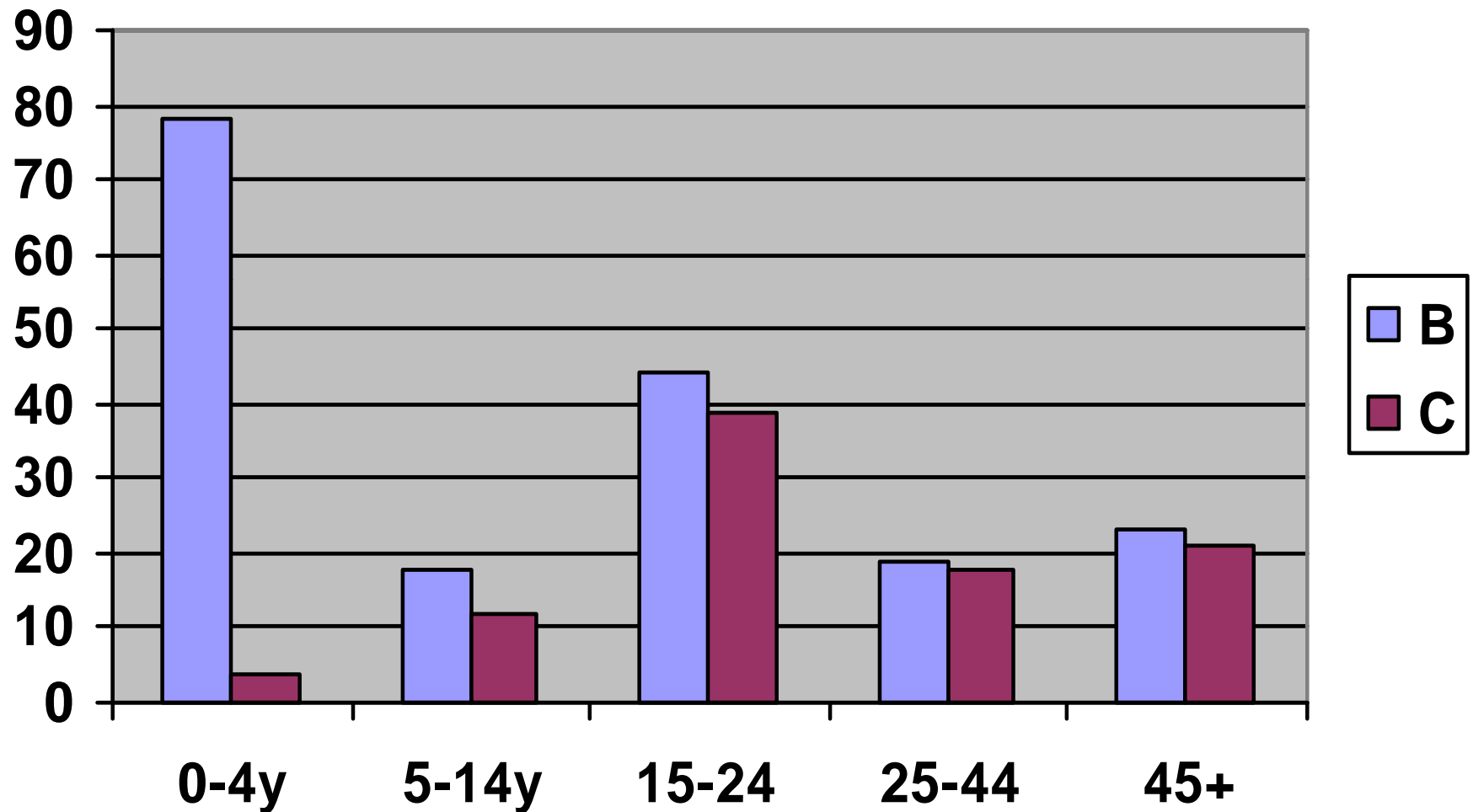


Robertson PW, Reinbott P, Duffy Y, Binotto E, Tapsall JW Pathology. 2001 Aug;33(3):375-8

Case 2 Recovery and other issues

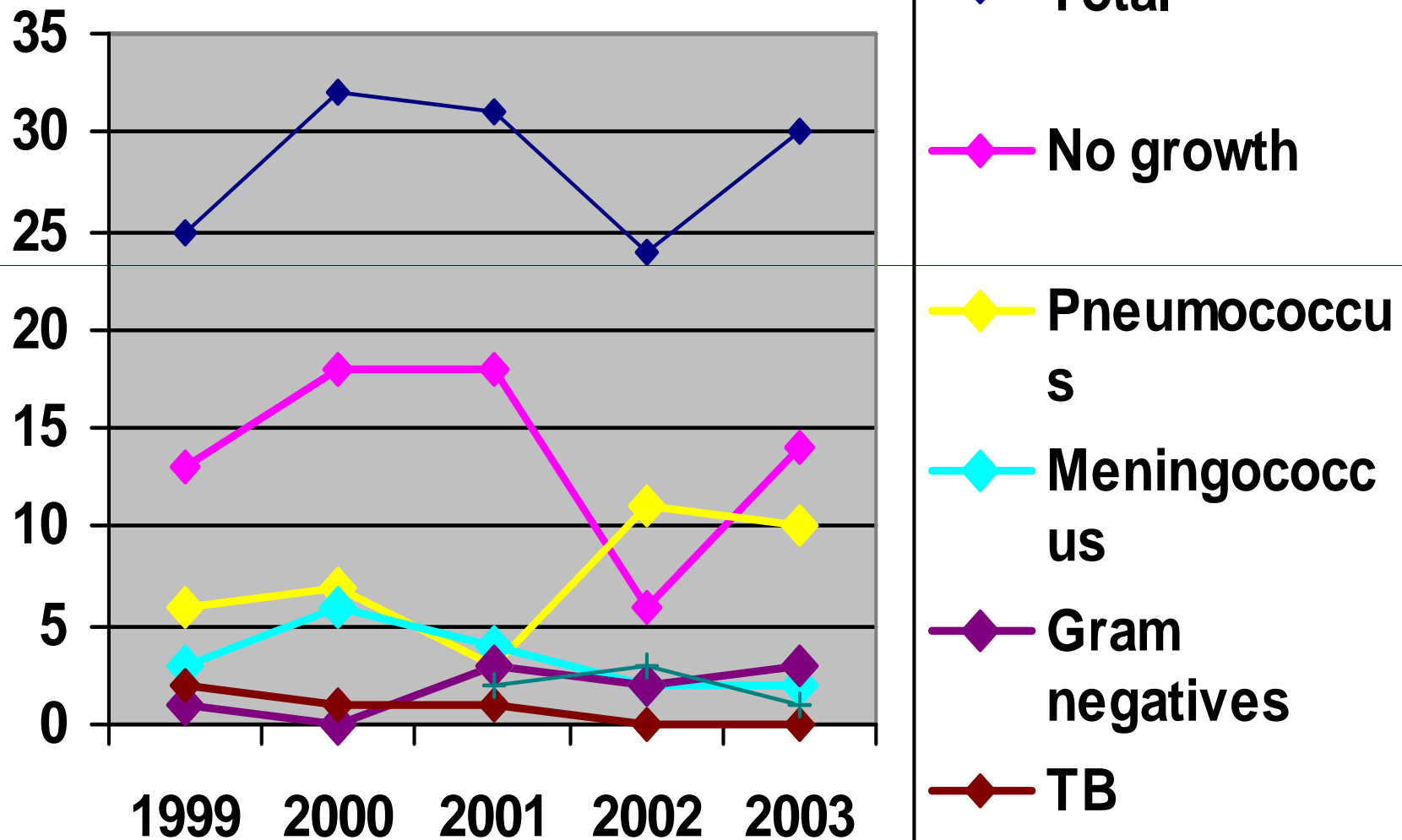
- Complete recovery
 - necrotic tip of ear
- But during initial resus, child vomited on a junior doctor (who is also pregnant..)
- Doctor received 1 dose IM Ceftriaxone
- Family given 2 days BD rifampicin in ED
- Public Health informed
- Parents considering immunisation now...

Number of serogroup B and C meningococcal isolates by age, 2003



Original data supplied by A.Limnios and A/Prof J Tapsall, Sth Eastern Area Lab Service for Annual report of the Australian Meningococcal Surveillance Programme, 2003 CDI 2003;28:2

1999 -2003:Trends in bacterial CSF pathogens at SCH



Case 3

MM

- 3 year old boy
- Blistering rash over back
- No fever
- Chicken pox aged about year



For reproduction of slides, acknowledgement of the editors and their clinical departments is appreciated.

Herpes Zoster in children

- Zoster can occur in infants and children
- Infants who have had chicken pox in their first year of life or in utero are at increased risk of zoster (incidence 4/1000pt yr compared with 0.4/1000pt yr)
- Zoster is often more mild in children and postherpetic neuralgia is very rare
 - Therefore treatment often not needed

Case 3 Other history

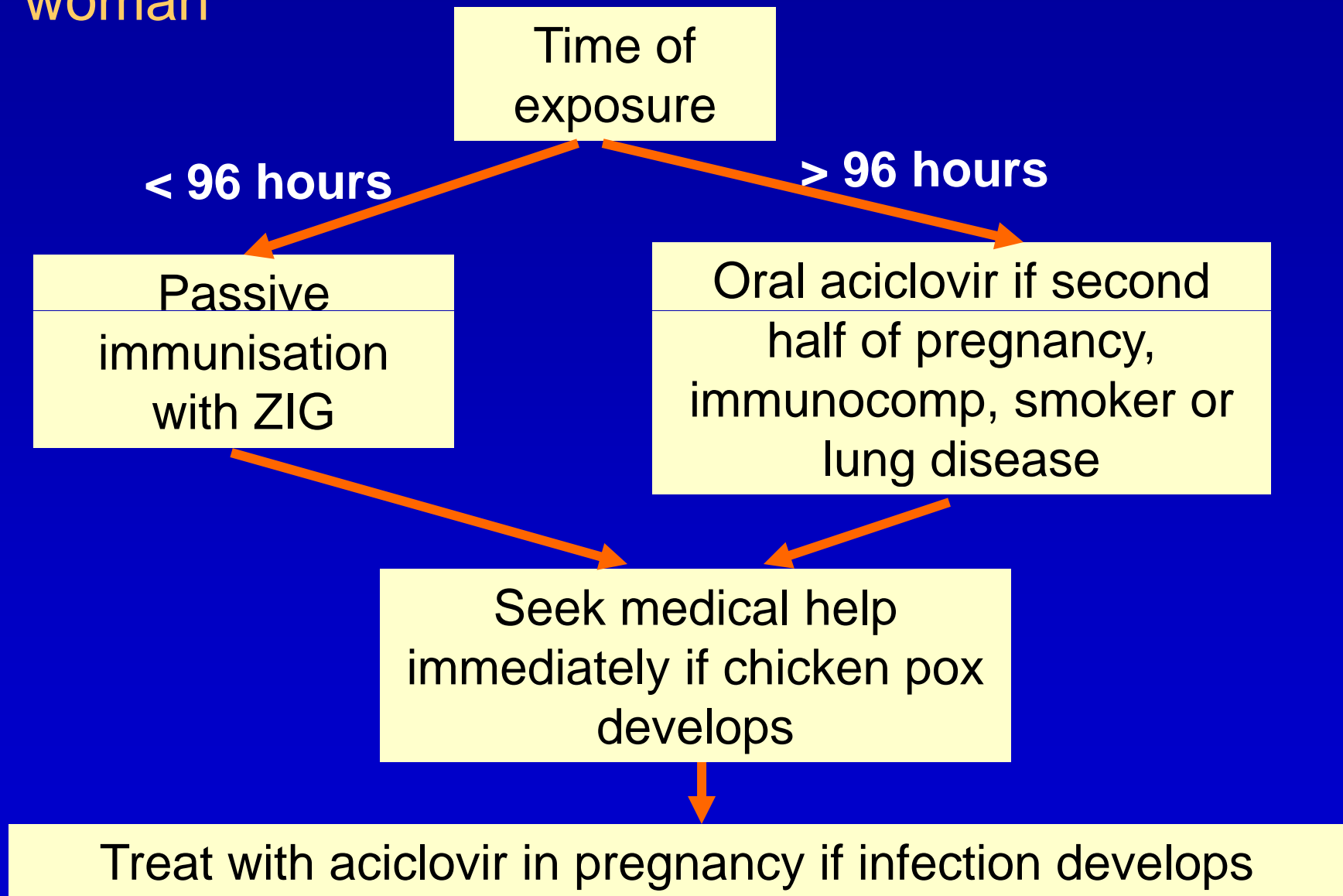
- Older brother has not had chicken pox
- Mother is 21 weeks pregnant and not sure if she has had chicken pox before (child used to live with his father)

Plan: Immunofluorescence to confirm dx

- Vaccinate sibling now
- Urgent serology - performed on mother

VZV IgG negative

Case 3 Management of seronegative pregnant woman



Case 3

Why important

- Timing of maternal infection important in risk of fetal varicella syndrome
- < 12 weeks 0.4%
- 12-20weeks 2%
- >20 weeks rare
- Sequelae include high frequency of skin scars, eye and limb abnormality and mental retardation

ID in the ED

Principles

- Early recognition and management
 - *IPD in the febrile child
- Prevention and infection control
 - *Meningococcal exposure in family or staff
- Appropriate use of antibiotics
 - *Current sensitivities
- Management of blood, body fluid and infective exposures
 - *Zoster in pregnancy
- Detection of outbreaks
 - *Within family or community for example pertussis

Case 4

JG

- 3 month old girl
- 'Blue fit at home'
- Cough, choked then unresponsive and floppy for 10 seconds
- Cough for past 7 days
- Born at 36 weeks
- Past history of reflux

- 1 older sibling - fully immunised

Case 4 JG

- On examination
- Afebrile
- Normal examination
- Father recently discharged from hospital after syncope (2 weeks prior)
- Ongoing investigations planned (cardiac monitoring possible VQ scan)
- Sister had a cough past fortnight



Video: infant with pertussis

Case 4 Progress

- Infant admitted for saturation monitoring
- Full blood count did not show lymphcytosis
- Commenced erythromycin QDS
 - Family received treatment course antibiotics
sister for prophylaxis (daycare attendance)
father and mother symptomatic
- Investigations sent from entire family

Results: Case 4

Pertussis s.IgA
positive

Pertussis PCR
positive
(pernasal swab)

Pertussis PCR
positive (pernasal
swab)

Sister 12 yrs
s.IgA positive



Notifications of Pertussis by age group 1996-2002

