Norfolk & Waveney CDR Team Newsletter Issue 1

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## A Newsletter for Professionals: Learning Together

# Unexpected Deaths in Infants and Children.

Infectious disease can progress very rapidly in both infants and older children and is a common medical cause of sudden or unexpected death in children.

A recurring theme arising from reviews of child deaths in Norfolk and Waveney is difficulty in the recognition of the sick child.

A closer look at all deaths reviewed suggests that even those with a recognisable "medical" cause of death there were indications that some could have been prevented.

When sick children arrive at primary care it is critical that they are appropriately screened and managed depending on the diagnosis made and if needed, referred to urgent care without delay. For health professionals to make the right diagnosis it is important to consider clinical signs, but these alone may not detect early indicators of severe illness in children and often parents may sense their child is unwell. In addition to and or in the absence of experience, they must be equipped with the right tools and training and ensuring parents have been heard.

The Child Death Review Team have reviewed several cases where **safety netting** advice could have been a life saver.

#### Safety -netting

Safety-netting has become a widely used term to describe an array of activities both within the consultation and on system levels. Within the consultation safety-netting is considered best practice and often an expected clinical standard, particularly in primary and emergency care. The term was first coined by Roger Neighbour in 1987 as an in-consultation tool for managing clinical uncertainty. Safety-netting advice has been defined as: "information shared with a patient or their carer, designed to help them to identify the need to seek further medical help if their condition fails to improve, changes, or if they have concerns about their health".

The Child Death Review Team have reviewed several cases where safety-netting advice could have been a life saver.

We know that there are some practices where rapid access to same clinicians, if needed as a follow up, simply cannot be guaranteed. It is vital that parents receive clear information on how to seek help, including overnight and at weekends or bank holidays, if symptoms change or worsen or do not progress as expected.

**In addition to the safety netting and risk assessment tool**, medical staff must learn to listen to parents who report their child is deteriorating, even if tests show no cause for alarm.

Recent cases reviewed, evidenced the care of the children who deteriorated while in hospital and found that parents had been best placed to see any changes in their children, but are not always heard and often afraid to speak up. Too often parents worry "about 'time-wasting' with any repeated concerns" or that they won't be listened to, but "it is imperative that parents feel welcomed and encouraged to speak up".

In conjunction with assessment tools and tests, Doctors, Nurses and other health professionals must work in partnership with the patient and the family.



#### The Sepsis Six Tool

Since 2015, the UK Sepsis Trust has collaborated with several organisations to produce operational Clinical tools for all ages (except specifically for neonates) across a wide range of healthcare settings. These tools were formally endorsed by the National Institute for Care Excellence (NICE). The screening tools have been updated to reflect the initial fluid resuscitation in children and young people under 16 years of age as per NICE NG51 (updated 2022).

The child death team have reviewed several recent deaths where there was a failure to manage sepsis according to international guidelines.

There is freely available international guidance for the recognition and management of paediatric sepsis [Weiss S et al. Executive Summary: Surviving Sepsis Campaign International Guidelines for the Management of Septic Shock and Sepsis-Associated Organ Dysfunction in Children. Paediatric Critical Care Medicine: February 2020 - Volume 21 - Issue 2 - p 186-195]. UK NICE guideline 51 "Sepsis: recognition, diagnosis and early management" [www.nice.org.uk/guidance/ng51] is also freely available

Because the screening tool was not used, opportunities to identify the red flags for sepsis were missed and the subsequent actions not instituted in a timely way.

The NHS is in a fragile state after the pandemic... and staff absence is a fact of life within the NHS now. That's partly because staff have left, it is partly because we have high caseloads, but it is also because staff are still off sick.

NHS STAFF SHORTAGES ARE 'BIGGEST' SEPSIS RISK THIS WINTER

\*See page 3 for the sepsis tool\*

### Disabled children are generally more vulnerable

Several children reviewed in our cases had Downs syndrome, it is important to remember that the presence of a disability in itself is never sufficient to explain why a particular child has died. A disabled child may be at risk through associated complications, for example heart failure due to an untreatable heart defect or through disease progression

#### Pneumococcal vaccine in complex children

Learning from lives and deaths: children with a learning disability and autistic children (LeDeR). LeDeR reviews have recently identified several deaths from pneumonia in complex needs children.

All children routinely receive the PCV 13 vaccine (protects against 13 strains of the pneumococcal bacterium). Those children with significant chronic conditions as defined in the green book should get PPV23 in addition

when they are above the age of 2.

Pneumococcal: the green book, chapter 25 – GOV.UK (www.gov.uk)

## G.P. Paediatric Sepsis Decision Support Tool



To be applied to all children under 5 years who have a suspected infection or have clinical observations outside normal limits

<ol> <li>In the context of presumed infection, are any of the following true:</li> </ol>
(consider pneumonia, meningitis/encephalitis, urinary tract infection, intra-abdominal infection, acquired bacteraemia

Patient looks very unwell

Parent or carer is very concerned

There is ongoing deterioration

Physiology is abnormal for this patient

(e.g. Group B Strep))

#### 2. Is ONE Red Flag present?

Unresponsive to social cues/ difficult to rouse
Health professional very worried
Weak, high pitched or continuous cry
Grunting respiration or apnoeic episodes
SpO<sub>2</sub> < 90%
Severe tachypnoea (see table)
Severe tachycardia (see table)/ bradycardia < 60
No wet nappies/ not passed urine in last 18 h

Non-blanching rash or mottled/ ashen/ cyanotic

Temperature < 36°C

If under 3 months, temperature > 38°C

N Low risk of sepsis. Consider other diagnoses.

Use clinical judgment and/or standard protocols.

Give safety netting advice: call 999 if child deteriorates rapidly, or call 111/arrange to see GP if condition fails to improve or gradually worsens. Signpost parent to available resources as appropriate.

#### 3. Any Amber Flag criteria?

	Tick
Parent or clinician remains very concerned	
Abnormal response to social cues/ not smiling	
Reduced activity, very sleepy	
Parent/ carer reports behaviour is abnormal	
Moderate tachypnoea (see table)	
SpO <sub>2</sub> < 91% OR nasal flaring	
Moderate tachycardia (see table)	
Capillary refill ≥3 seconds	
Reduced urine output	
Pale or flushed	
Leg pain or cold extremities	

#### Sepsis likely

Use clinical judgment to determine whether child can be managed in community setting. If treating in the community, consider:

- planned second assessment +/- blood results
- brief written handover to colleagues
- specific safety netting advice

If immunity impaired refer for urgent hospital assessment

## Red Flag Sepsis!

Dial 999, arrange blue light transfer

Administer oxygen to maintain saturations > 94%

Write a brief clear handover

Ensure crew pre-alert as 'Red Flag Sepsis'

Age	Tachypnoea		Tachycard	Tachycardia	
	Severe	Moderate	Severe	Moderate	
< 1 y	≥ 60	50-59	≥ 160	150-159	
1-2 y	≥ 50	40-49	≥ 150	140-149	
3-4 y	≥ 40	35-39	≥ 140	130-139	

Sepsis Six and Red Flag Sepsis are copyright to and intellectual property of the UK Sepsis Trust, registered charity no. 1158843. sepsistrust.org



## **Drug Information Alert**

DATE:

20 February 2023

(to be displayed until 20 March 2023)

#### Danger: REPORTS OF HARM IN AEROSOL/GAS USE

After what appeared to be an isolated incident in summer 2022 when a young person died of apparent aerosol/gas use, there has been a more recent report where a young person reportedly lost consciousness when aerosol/gas use was suspected. There are also reports referencing 4 young people using aerosol/gases in Cheshire West & Chester.

#### Details:

Aerosols/gases are a wide range of products that contain volatile substances which people inhale for their psychoactive effects.

There are lots of aerosol/gases that can cause harm and many are household products, such as deodorants, hairsprays, and butane gas.

Consequences: Inhaling aerosols/gases can cause breathing difficulties, blackouts, slurred speech, hallucinations, falls and accidents.

Squirting products down your throat can cause it to swell up so you can't breathe. It can also cause heart attacks and users to lose consciousness. Some users also die from choking on their own yomit.

Some of these products are also flammable which increases the risk of burns.

#### Harm reduction: There is no 'safe' way to use aerosols/gases.

- People using aerosols/gases should not do it alone.
- Don't spray aerosols/gases directly into mouth.
- Mixing aerosols/gases with alcohol or prescription medication is particularly dangerous and the effects can lead to unconsciousness.
- Don't smoke or light anything nearby as these products are flammable.

The alert should be displayed with the date it should be taken down.

The impact of an alert is lessened the longer it is displayed.

If the issue is still a concern after the date specified, an update can be issued.



For more information, contact New Beginnings on 0300 303 4549.