

Beware Sepsis – Think Sepsis

The National Clinical Programme for Sepsis has recently launched a new national clinical guideline, ‘*Sepsis Management for Adults (including maternity) National Clinical Guideline No. 26*’, available to download [here](#).

The report describes the burden of sepsis on the Irish health system. While the guideline is comprehensive and detailed, it is primarily aimed at the management of sepsis in secondary care. As many of these cases will have been referred to hospital from primary care, sepsis awareness is of vital importance when assessing and diagnosing patients in the community. We hope that you will find this article helpful for some useful prompts to increase clinical awareness and improve early recognition of sepsis.

Definition

The Guide defines Sepsis thus:

Sepsis is life-threatening organ dysfunction caused by a dysregulated host response to infection (Singer et al., 2016). Maternal sepsis is a life-threatening condition defined as organ dysfunction resulting from infection during pregnancy, childbirth, post-abortion or postpartum period (WHO, 2017)

Diagnosing Sepsis in Primary Care

As many cases will have been referred to hospital from primary care, sepsis awareness is of vital importance when assessing and diagnosing patients in the community, where there is limited access to blood tests and diagnostics, and the GP must depend entirely on their clinical skills.

‘70-80% of sepsis cases arise in the community’. (CDC, 2016).

The guide comments:

*‘The guideline recognises that there is **no single test** that confirms the presence of infection or sepsis but rather the diagnosis is based on the presence of a suite of symptoms and signs supported by tests and investigations. It also recognises that whilst the identification of a pathological organism is very valuable in guiding treatment, that blood cultures are only positive in 40-55% of cases (Martin et al., .2003), (Brun-Buisson et al., 1995), and in some cases even lower (Coburn et al., 2012) (Jones and Lowes, 1996), and that a negative culture does not preclude the diagnosis of infection or sepsis.’*

This indicates that even in an in-patient facility diagnosing sepsis can be fraught with difficulty.

Good Records

Every GP lives in fear of missing sepsis in a patient. It can be hard to predict which patient may develop sepsis after being seen in the early stages of an illness when there were no red flags. Good records and clarification that sepsis was considered at the time of assessment, and the relevant clinical examination and vital signs well recorded, in addition to firm safety netting can be reassuring to the GP if the patient were to subsequently deteriorate.

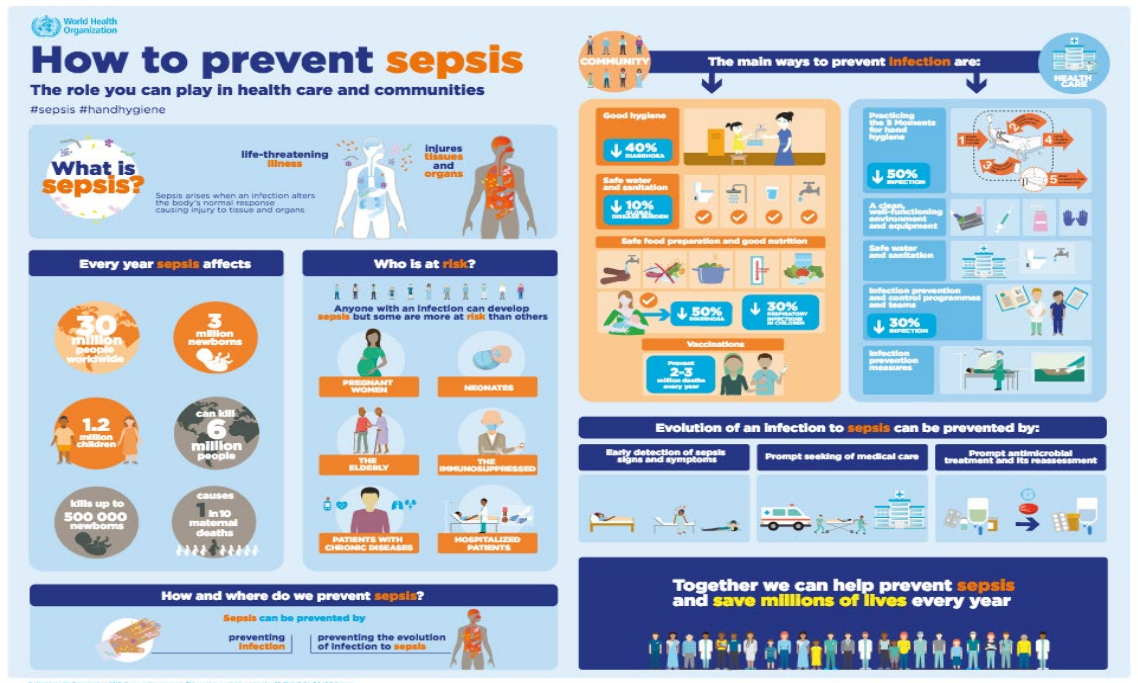
Complexities in diagnosis

While the guide is primarily aimed at secondary care, of some relevance to the General Practitioner is the following extract:

In order for patients to have the best opportunity to survive they need to present for medical review and have sepsis recognised and managed in an appropriate and timely manner. There is an important role for primary and community care in terms of risk recognition and for public awareness of the signs and symptoms of deterioration that may signal the development of sepsis, in order to ensure the right patient is in the right place at the right time to receive the right treatment; however, this is outside the remit of this guideline. It is recognised that the presentation of sepsis is variable in symptoms, signs and time course. Thus, sepsis may

not be present or not be diagnosed on first presentation and may not become apparent until the clinical condition evolves further.

The WHO have developed a useful poster to raise awareness of sepsis in the community:



Common Infection Sites:

The most common original sites of infection leading to sepsis are, in descending order:

- respiratory,
- urinary,
- intra-abdominal; and,
- skin.

Medisec has had some claims in the recent past where a patient subsequently developed sepsis, following assessment by the GP. Medisec would like to remind members to have a high index of suspicion for sepsis or the potential for developing sepsis in an ill patient.

It is so important to keep good records of your examination and advices, including temperature, pulse, blood pressure, respiratory rate and oxygen saturation. In addition, a record of the patient's mental status, and level of mobility represents a full and comprehensive assessment of the patient. Safety netting advice should also be clearly recorded.

Consider offering printed reminders to patients vulnerable to sepsis as an addition to routine safety-netting, and as a reminder that clinical status can deteriorate quickly.

The HSE have useful patient resources and leaflets available on their website [here](#), along with other useful sepsis related information.

The HSE currently encourages GPs and hospitals to display information videos on digital screens and sharing them on social media channels to help promote the message of the importance of knowing the signs of sepsis in children. The video is available [here](#).

In summary:

SEPSIS RED FLAGS:

- Patient poorly aware/poorly responsive
- Patient exhibiting confusion
- Systolic B.P \leq 90 mmHg
- Heart rate $>$ 130 per minute
- Respiratory rate \geq 25 per minute
- Needs oxygen supplementation to keep SpO₂ \geq 92%
- Skin is mottled, blue or shows a non-blanching rash
- Reduced urine production

HIGH RISK PATIENTS

Remember that high risk patients for sepsis include the following:

- The very young and the very old
- Patients who have recently undergone surgery
- Pregnant women
- Patients on chemotherapy
- Patients on any immunosuppressant medication

This is not a comprehensive list and further information can be found [here](#) on the HSE website.

Other Recourses

The UK Sepsis Trust have developed a useful patient and GP oriented comprehensive algorithm for the suspicion of sepsis in a patient, which is a handy everyday tool and can be viewed [here](#). There is also a clear algorithm for telephone triage. GPs are reminded that algorithms and guidelines for the early diagnosis of sepsis in the community change with time and according to national guidelines.

MedPro have also written a comprehensive and easy to read overview of the risks and significance of sepsis in the community; *Improving Identification and Management of Sepsis in Outpatient Settings*, which can be viewed [here](#).

This article was originally published in our Medzine on 29 October 2021. The contents of this publication are indicative of current developments and contain guidance on general medico legal queries. It does not constitute and should not be relied upon as definitive legal, clinical or other advice and if you have any specific queries, please contact Medisec for advice.