

Dr Dai Lloyd
Chair, Health Social Care and Sport Committee
National Assembly for Wales
Cardiff Bay
CF99 1NA

25 February 2020

Dear Dr Lloyd

Health, Social Care and Sport Committee Inquiry into Sepsis

Thank you for inviting the Royal Pharmaceutical Society in Wales to contribute to the Health, Social Care and Sport Committee inquiry into sepsis.

The Royal Pharmaceutical Society is the professional body for pharmacists and pharmacy in Great Britain. We lead and support the development of the pharmacy profession to improve the public's health and wellbeing, including through advancements in science, research and education.

We are pleased to provide the following comments in response to the inquiry's terms of reference:

What understanding is there about sepsis incidence, how sepsis is presenting to services, and outcomes from sepsis

We understand that admissions to hospital due to sepsis are on the rise. There are several possible explanations for this such as the pressures of identifying and treating numerous conditions in primary care, the ageing population and the presentation of comorbidities. A significant contributory factor in this increase, highlighted by our members, is treatment failure for UTI in the primary care setting.

Choosing the right course of treatment for sepsis when rates of antimicrobial resistance are increasing is a particular challenge. Data shows that resistance to first line agents is rising, and typical hospital sepsis drugs are becoming less effective due to increases in resistance to these agents. This is particularly worrying, given many of these patients presenting to acute services will already be septic, to then receive a drug which has an increasing risk of being ineffective due to resistance. This will inevitably lead to longer treatment courses and treatment failures.

Treating sepsis conservatively and ensuring the patient receives a prompt review and de-escalation of their condition is critical. Antimicrobial resistance can be minimised in this way, helping to prolong the effective treatment of sepsis in the future.

Public and professional awareness of sepsis

We understand there is a general and broad awareness of sepsis among the pharmacy profession. Mandatory training may however be needed to ensure universal awareness for all pharmacists working across all sectors of the health care system.

Sepsis training is incorporated into the undergraduate pharmacy curriculum at Cardiff University, ensuring at qualification all pharmacy graduates will have a basic understanding of sepsis. Sepsis is also currently covered in the Clinical Pharmacy Diploma¹ programme undertaken by qualified pharmacists at Cardiff University. This is an option for advanced pharmacy practice and is not mandatory.

We understand that Health Education Improvement Wales (HEIW) have a Sepsis webinar recording available to all pharmacists² and have sepsis awareness events scheduled in April and May 2020. Utilising these training resources is completely voluntary and at the discretion of the pharmacist.

We are pleased to see that mandatory training on sepsis has been introduced for all pharmacists working for NHS 111 Wales. A one-day workshop, commissioned by HEIW and delivered by a leading clinical training provider, aims to equip pharmacists with specific skills in recognising and identifying sepsis. The training is delivered by experienced clinicians and takes a case management approach. The training is also supplemented by an e-learning resource provided by NHS England, which provides certification on completion of the on-line course.

We are aware that new prescribing services run by community pharmacists such as the urinary tract infection (UTI) pilot service in the Swansea Bay Health Board area, require sepsis training. In these circumstances pharmacists must complete a training module developed by the Royal College of General Practitioners on sepsis³. As a specific clinical service, prescribing pharmacists require access to patient records to support clinical decision-making. As a matter of course however, community pharmacists don't have access to a patients records or recognised referral pathways to manage sepsis appropriately and promptly.

Our members working in secondary care report a high awareness of sepsis among health care professionals. It not always clear however how patients should be treated initially, and concern has been raised with us about how to identify and manage patients with sepsis.

Patients often receive initial treatment with very broad spectrum antibiotics, as it will not always be clear to the prescriber where the source of infection is and what the cause has been. The over-use of these broad spectrum agents is leading to the development of resistance to these 'sepsis' drugs as well as putting the patients at increased risk of acquisition of healthcare Associated infections such as *Clostridium difficile* associated diarrhoea. There are also secondary effects to antimicrobial treatment, such as toxicity, which may produce temporary or permanent damage such as decreased kidney function or hearing loss. We are concerned that there is a lack of awareness of many of these secondary effects associated with sepsis treatment.

At the RPS we host a portal for Antimicrobial Stewardship (AMS)⁴ to support our members. The Portal focuses on resources to support pharmacy practice. We recognise the need to signpost worldwide information and therefore resources from outside GB are also included as additional links. We aim to continuously develop the AMS Portal to be accessible across all healthcare professions, encouraging a multidisciplinary and collaborative approach for improvement of antimicrobial use. The Portal includes signposting to available resources on sepsis, mostly provided through Public Health England, Health Education England, and NHS England.

¹ <https://www.cardiff.ac.uk/study/postgraduate/taught/courses/course/clinical-pharmacy>

² <https://www.wcppe.org.uk/product-category/webinar-recordings/>

³ <https://www.rcgp.org.uk/clinical-and-research/resources/toolkits/sepsis-toolkit.aspx>

⁴ <https://www.rpharms.com/resources/ultimate-guides-and-hubs/amsportal>

Recommendation 1: Sepsis training for pharmacists in all sectors should be mandatory. To increase participation in continuous professional development (CPD), pharmacists must be given time during their working day to complete CPD on a range of issues including sepsis.

Recommendation 2: In order to further develop the role of community pharmacists in the management of sepsis, access to patient records and inclusion in referral pathways is essential.

Identification and management of sepsis in out-of-hospital settings, including use of relevant screening tools / guidance

Our members report that managing sepsis in out-of-hospital settings is particularly difficult. In acute hospitals the patient benefits from prompt access to medical advice, can be monitored by clinical staff and treatment can be escalated easily when needed. In primary care, treatment is very much dependent on initial diagnosis by pressured clinicians and monitoring and follow-up is difficult. There are a number of tools available to support the clinician in primary and community care, including the RCGP TARGET⁵ web-based toolkit which supports clinical training and includes patient information resources.

New Point of Care Tests are also being tested and rolled out in community settings, including C-reactive protein (CRP) diagnostic tests in GP practices and the Sore Throat Test and Treat service in community pharmacy, both of which lend assurance to the clinician and allow treatment to be targeted to those most at need (again, reserving antimicrobials in thus reducing the burden on antimicrobial resistance). On appraisal these services result in more prudent use of antibiotics.

In out of hours care, NHS 111 Wales have introduced the National Early Warning Scoring System (NEWS)⁶, developed by the Royal College of General Practitioners, as a validated clinical tool for the management of suspected cases of sepsis. We understand that plans are also being explored to introduce the Paediatric Observation Priority Score (POPS)⁷ as a standard tool to focus on paediatric care which will support the identification of sepsis and professional decision making when triaging emergency cases. These tools are very much regarded as support tools for NHS 111 pharmacists. They provide a consistent approach to support clinical decision-making in ruling out significant or pertinent negatives and aid diagnosis. The tools also provide a 'common currency' for managing suspected cases of sepsis, recording and auditing interventions, and supporting reflective learning.

Our members in secondary care are in favour of tools such as 'Start Smart then Focus'⁸. This is a prescribing guide which encourages patients to be reviewed following a diagnosis of sepsis, to identify an infection focus, causative organism and antimicrobial sensitivity, allowing prescriptions to be tailored to the individual patient. This helps, not only to treat the sepsis more effectively, but also to reduce the associated risks such as acquisition of health care associated infections, resistance and side effects. This tool encourages prompt and appropriate treatment for patients presenting with sepsis, but also encourages a senior clinical review around three days when microbiology lab results start to become available, to ensure treatment is tailored to the infection or stopped if no longer needed. This supports balancing the need for treatment with the need to reduce inappropriate use of antimicrobials and to reduce the burden on antimicrobial resistance.

⁵ <https://www.rcgp.org.uk/clinical-and-research/resources/toolkits/amr/target-antibiotics-toolkit.aspx>

⁶ <https://www.rcgp.org.uk/clinical-and-research/about/clinical-news/2018/january/the-updated-national-early-warning-score-and-its-use-with-suspected-sepsis.aspx>

⁷ <https://www2.le.ac.uk/departments/cardiovascular-sciences/research/intervention/emergency-medicine-group/research/pemla/pops>

⁸ <http://www.wales.nhs.uk/sitesplus/documents/888/Public%20Health%20Wales%20Antimicrobial%20Stewardship%20Guidance.pdf>

Given the difficulty of monitoring and follow-up, patient education and safety-netting is vitally important to ensure patients can self-diagnose and present to acute services if they deteriorate. This is true, not only for patients who develop sepsis in the community, but also those discharged from secondary care following surgery or other medical interventions.

Pharmacists working in the community, hospital and in primary care settings are ideally placed to pick up early signs of sepsis in the community. The RPS would support an increase in training and access to appropriate screening tools to support pharmacists to identify and manage suspected cases of sepsis.

Recommendation 3: The use of clinical tools such as NEWS and POPS could be extended into primary and community care, including care home environments, to ensure consistency in the approach to identifying and managing sepsis across Wales.

Recommendation 4: The Sore Throat Test and Treat service should be universally available in all community pharmacies to support early diagnosis and prevent the overuse of antibiotics.

The referral process between primary / secondary care

Our members in community pharmacy report that there is very little training in this sector on sepsis. We would encourage appropriate Sepsis awareness training for all community pharmacists, not only to assess and signpost but also to escalate if necessary. This could sit on the National Enhanced Services Accreditation (NESA)⁹ training platform, provided by HEIW, mandatory for any community pharmacists providing additional services in Wales. Patients should be able to self-refer, so patient awareness and education is vital.

The physical and mental impact on those who have survived sepsis and their needs for support

Anecdotally our members report that support post sepsis appears to be poor or varied in delivery. We are aware however that post meningitis support in children is very good. Our members feel there is a greater need for recognition and support of the long-term impact of sepsis in adults. We are not aware of training provided for pharmacist on post sepsis support.

I trust this response and our recommendations are helpful to the Committee. I would be pleased to elaborate on any issues further.

Yours sincerely



Suzanne Scott-Thomas
Chair, RPS Welsh Pharmacy Board

⁹ <https://www.wcppe.org.uk/nesa-demo-page-v2/>



Patron: Her Majesty The Queen
Chief Executive: Paul Bennett