

PROCALCITONIN: PCT AS A BIOMARKER FOR ANTIMICROBIAL STEWARDSHIP

GLOSSARY

ACE Inhibitor - angiotensin-converting enzyme. Lowers blood pressure by encouraging the blood vessels to relax and open promoting the free flow of blood.

Acute respiratory distress syndrome (ARDS) - decreased oxygenation of the blood (and thus organs) as a result of fluid build-up in the alveoli of the lungs.

Adverse effects - any unwanted or harmful side effects experienced during or after treatment with a drug or therapy.

Afebrile - free from fever.

Albumin - a type of protein made by the liver.

Antibiotic de-escalation - assessment of treatment followed by a reduction or cessation of antibiotics.

Antimicrobial Resistance - when fungi, parasites, bacteria and viruses change over time and no longer respond to medicines.

Antimicrobial Stewardship - a coordinated set of actions put in place to manage the usage of antimicrobial within a healthcare facility to promote appropriate usage and discouraged overuse or misuse.

Biomarkers - characteristics which can be measured as an indicator of biological processes.

Broad-spectrum antibiotics - antibiotics which can be used against a wide range of bacteria.

Central venous pressure - the average blood pressure in the vena cava of the heart.

Clinical Judgement - the process leading to healthcare professionals making a logically decision based on the information given about a patient.

Colostomy - a surgical procedure bringing one end of the large intestine out through the abdominal wall.

COVID-19 pneumonitis - inflammation of lung tissue (i.e. pneumonitis) as a consequence to illness with COVID-19.

C-reactive protein (CRP) - a substance produced in the liver in response to inflammation.

Creatinine - a waste product produced in your muscles from the breakdown of a compound called creatine.

Crystalloids - a type of fluid used for fluid replacement.

Diagnostics - means to reach a diagnosis and determine patients' suitability for a therapy and/ or disease monitoring.

Fluid resuscitation - fluid replacement.

Host Response - the reaction of a living organisms to the presence of a foreign object.

Hypertension - high blood pressure

Immunocompromised Patients - patients with weakened immune systems and a low ability to fight infection.

Intrathecal - a route of drug delivery in which drugs are given via an injection into the spinal canal or subarachnoid space, bypassing the blood-brain barrier.

In Vitro Diagnostics - testing done on samples taken from the human body.

Laparotomy - a surgical incision (cut) into the abdomen.

Lag phase - the period before exponential growth where the bacteria are adjusting to the environment.

Mean arterial pressure - the average arterial pressure throughout one cardiac cycle (i.e. one cycle of contraction/systole and relaxation/diastole). This is determined by the cardiac output of the heart, and the total peripheral resistance of the blood vessels of the circulatory system.

Meta-analysis - a statistical analysis that combines the results of multiple scientific studies.

Multidisciplinary team - a team of healthcare professionals who come from a variety of clinical specialties. The team uses each person's expertise to reach a common goal.

Multi-drug resistant organisms - bacteria, viruses, fungi or parasites which have developed resistance to antimicrobials due to overuse.

Neutrophils - a type of white blood cell involved in the immune response and fighting infection.

PaO₂ - the partial pressure of oxygen.

Pneumococcal - of or related to the bacterium *Streptococcus pneumoniae*.

Procalcitonin (PCT) - a biomarker that can indicate bacterial infections

Randomised-controlled Trials - a trial where participants are assigned to the experimental group or the placebo group randomly by a computer.

Rapid Diagnostic Tests (RDTs) - a type of point-of-care testing where diagnostic results can be provided almost immediately to the patient, e.g. in a primary care facility.

Rigors - a feeling of cold with shivering accompanied by a rise in temperature, and sometimes sweating. Seen especially during a fever.

Sepsis 6 - a pathway of medical therapies used to reduce mortality in patients with sepsis.

Sigmoid perforation - a hole in a section of the long intestine/colon (the sigmoid colon).

Sinus rhythm - the normal heart rhythm, as set by the heart's sinoatrial node pacemaker.

SOFA - assesses each organ to determine a score for overall organ function.

SpO₂ (oxygen saturation) - the fraction of oxygen-saturated haemoglobin in the blood, relative to total haemoglobin.

Stewardship team - healthcare professionals within a facility who are responsible for implementing the antimicrobial stewardship procedures.

White cell count - a measure of white blood cells in a blood sample. A low white blood cell count can increase the risk of getting infections.