A Beginner's Guide To Cancer Immunotherapy

Introduction

Over the past ten years, immunotherapies have become a widely used, and widely talked about treatment option for many cancer patients. This brings many new challenges for cancer nurses and their colleagues, not only in terms of administering these treatments, but also in explaining them to patients.

In this half-day course, Dr Elaine Vickers will equip learners with the scientific concepts, language, and knowledge that healthcare professionals need in order to discuss immunotherapies with their patients and colleagues.

Dr Vickers' goal is to explain the science that underpins immunotherapy. She also hopes to provide learners with a broad understanding of why it works well for some patients but not for others.

Elaine's presentations are full of colourful and enlightening illustrations to help learners make sense of scientific concepts. Her descriptions avoid unnecessary jargon and are pitched so that even those with a limited understanding of cell biology and immunology are able to understand.

Format

The morning comprises three presentations of 30-40 minutes each. Elaine will be online throughout to interact with learners and answer questions.

Audience

This content is ideal for research nurses, clinical nurse specialists, pharmacists and clinical trials coordinators. It may also be of interest to other healthcare professionals who would like to improve their understanding of immunotherapy.

About Dr Vickers

Elaine has a degree in Medical Science from the University of Birmingham and a PhD in Molecular Biology from the University of Manchester. She has worked as a specialist cancer educator and writer for almost 20 years. Her goal is to unravel the complexities of cancer biology and new cancer treatments and to make these topics interesting and accessible to non-scientists. Elaine is the author of: "A Beginner's Guide to Targeted Cancer Treatments", which was commended by the British Medical Association's book awards in 2019.

Programme

Session 1 – The relationship between cancer and the immune system
- A brief introduction to the immune system
- How cancer's relationship with the immune system changes over time
- How the immune system can recognise and react to the presence of cancer in the body
- How cancer cells avoid being destroyed by white blood cells
- Introduction to immunotherapy and the importance of T cells
- Reasons why immunotherapy sometimes does work and sometimes doesn't

LIVE Q&A

Session 2 – Immunotherapy with checkpoint inhibitors for solid tumours
- Introduction to checkpoint proteins on T cells
- Mechanism of action of checkpoint inhibitors that target PD-1, PD-L1 and CTLA-4
- Progress so far with checkpoint inhibitors
- Checkpoint inhibitor combinations
- Biomarkers to select patients most likely to respond

LIVE Q&A

Session 3 – Immunotherapy for haematological cancers
- Targeting CD antigens on T cells with monoclonal antibodies
- Tethering cancer cells to T cells: bi-specific antibodies & bi-specific T cell engagers
- CAR T cell therapy:
    - Overview of the CAR T cell process
    - CAR protein design – what each bit does and why it matters
    - Reasons for resistance and relapse
    - Overview of the results so far with CAR T cells for different haematological cancers

LIVE Q&A