

Oncology Pharmacists in UK

Aseptic Preparative Services

Similar from the practices all over the world, the roles of oncology pharmacists in UK are developed from the Aseptic Preparative Service (APS). APS can only be exempted from the licensing requirements of the Medicines Act UK provided that:

1. the preparation is under supervision of a responsible pharmacist;
2. the preparation uses closed systems;
3. licensed sterile medicinal products are used as ingredients;
4. products are allocated a shelf life of no more than 1 week and the shelf life should be supported by stability data; and
5. all activities are in accordance with defined NHS guidelines .

A comprehensive and correctly implemented APS system of Quality Assurance incorporating the principles of Good Manufacturing Practice (GMP) had been set up in accordance with the NHS guidelines in my previous practice. For example:

- * Documentation - standard operating procedures, worksheets, records and reports, labels
- * Personnel, training and competency assessment
- * Aseptic Processing Validation
- * Microbiology and Physical Monitoring
- * Aseptic Cleaning
- * Quality control of manufactured products

We provided day-to-day cytotoxic reconstitution services to wards and the day case unit. I needed to oversee that all work within the aseptic unit complies with the requirements of GMP. This involved the implementation and regular review of the APS system (mentioned above), Policies and local Guidelines through Standard Operating Procedures.

The Role of a Specialist Oncology Pharmacist

The role was then extended to specialist oncology pharmacist including but not limited to the following aspects:

- provide professional verification of prescriptions;
- run pharmacy nurse led nadir clinic monitoring WBC, ANC, platelet and other laboratory results;
- provide specialist clinical expertise on the prescribing, preparation and administration of chemotherapy therapies;
- provide counselling service to patients on the use of medications and chemotherapy;
- provide clinical pharmacy services on wards;
- ensure prescribing practices in line with the Drugs and Therapeutics Committee and Cancer Network

drug therapy decisions; and

- perform audit of adverse drug reactions and report to MHRA.

An Intervention Case to Share

During my practice as a specialist clinical oncology pharmacist in UK, I have come across some cases in relation to the intervention of chemotherapy treatment. Below is a case that I found valuable to share with:

"A patient was on ECF every 21 days (three pre-surgery and three post-surgery cycles) for oesophageal cancer:

1. Epirubicin 50mg/m² IV Day 1
2. Cisplatin 60mg/m² IV Infusion Day1
3. Fluorouracil (5-FU) 1400mg/m² IV Continuous Infusion (via infusor pump) for 7 days on day1, day8 and day15

On cycle 1, day 15 5-FU infusor pump had been omitted due to neutropenia (neutrophil count was 0.56). On cycle 2 the day before chemotherapy, neutrophil count was increased to 1.14. Patient had been deferred for 7 days by the nadir clinic. Besides, renal function was impaired after one cycle of chemotherapy: creatinine clearance was dropped from 56ml/min to 42ml/min."

I had picked up above information at the stage of prescription verification for the deferred cycle 2 chemotherapy. Without specialist oncology pharmacist's intervention, the patient would have a large probability developing neutropenic sepsis which is a major life threatening side effect of chemotherapy. I recommended the prescriber adjust 20% dose reduction for Epirubicin in order to prevent neutropenic sepsis. Besides, Cisplatin dose was recommended adjust to 50mg/m² instead of 60mg/m² due to the impaired renal function. The consultant prescriber agreed with the pharmaceutical care plan and made the final decision in line with my recommendation. As a result, the patient completed the whole chemotherapy treatment plan safely and achieved the intentional treatment goal.

Way Forward of Oncology Pharmacists in UK

Currently, the roles of oncology pharmacists in UK had been further extended to Cancer Network Pharmacist, Clinical Trial Oncology Pharmacist, Palliative Care Oncology Pharmacist and Independent Prescribing Consultant Oncology Pharmacist. The report of the "Chemotherapy services in England: ensuring quality and safety" published on 21 August 2009 revealed that the government in UK would like to develop "A&E Oncology Pharmacist" in the future.

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