



## Practice sting 2023-08

### Practice sting Prescribing cytostatics is an art in itself

**This Practical sting is particularly interesting for prescribers of cytostatics and hospital pharmacists**

Correctly prescribing cytostatic treatments is more difficult than it seems, as shown by the notifications that VMI has received in recent months.

#### Notifications

1. A patient receives a course of R-CHOP (doxorubicin, cyclophosphamide, vincristine and rituximab). The physician decides to switch the course to rituximab monotherapy. The physician removes the medicine orders for doxorubicin, cyclophosphamide and vincristine from the next cycle of the R-CHOP course. The next time the patient comes to the hospital for a new cycle of the course, the medication list and administration record indicates that the patient must receive a course of R-CHOP. This course has been prepared and not the rituximab monotherapy.
2. For a patient receiving daratumumab at the outpatient clinic, daratumumab has not been prescribed in the EVS (electronic prescription system). The nurse asks the physician if he wants to prescribe it. While prescribing, the physician observes that it concerns the first dose of a second course of cytostatics and that the patient did not have a check-up appointment to assess whether the second course can be started. He also observes that the planning of the administration of the second course is incorrect, because the start date of the first course of cytostatics has been moved.
3. A physician prescribes a course of gemcitabine for a patient. The physician adjusts a treatment protocol - which has been drawn up for another patient - to make it suitable for this patient. The physician does not adjust the administration of fluids to the patient. As a result, the fluid policy to be followed for the patient is not in line with the administered treatment.
4. A patient has been switched to another course of paclitaxel because of complaints. The prescriber aborts the current protocol in the cytostatics prescribing system and clicks on the desired protocol. When switching, the information is lost that the patient received 75 percent of the dose in previous courses due to side effects. The patient receives the full dose with the new course and suffers greatly from this.

#### Analysis

The Dutch Field standard for prescribing, preparing, delivering and administering cytostatics states that cytostatic treatments must be prescribed, delivered and administered on the basis of current and authorized treatment protocols. The Field Standard also states that prescribers of cytostatics must be competent. The notifications show that it is essential that the prescriber and the pharmacist realize how computer systems work and how changes made to these systems can lead to errors.

The prescriber in notification 1 is insufficiently aware of the extent to which a change in one cycle affects subsequent cycles. The prescriber in notification 2 does not realize that in the hospital information system prescriptions for cytostatic treatments are not linked to laboratory appointments and outpatient visits. So if the first course moves up in time, the prescriber also has to move up the time for the subsequent courses, as well as the dates for laboratory tests, administration of cytostatics and controls. The prescriber in notification 3 does not realize that if you adjust a treatment protocol from one patient to another patient, essential information can be lost. And finally, the prescriber in report 4 – and also the pharmacist of this hospital – did not

realize that if you switch from one treatment protocol to another protocol, important dose information can be lost.

## **Recommendations**

### For prescribers of cytostatics

- Realize that you are only competent at prescribing cytostatics if you know the ins and outs – including weaknesses – of the cytostatic prescribing system.
- When prescribing cytostatics, ensure that each patient is treated according to an authorized, digitally recorded treatment protocol.
- In the case of a follow-up course, check on the basis of the previous prescribed course whether the correct course has been prescribed. Look for differences to see if they can be explained.
- Make sure that no information is lost when switching from one course to another.
- Be aware that if a course of cytostatics moves up in time, the next course must also move up in time. This also applies to appointments for laboratory tests, appointments for the administration of cytostatics and appointments with the prescriber.
- Do not adapt treatment protocol from one patient to another. Start with a new treatment protocol for every new patient.

### For hospital pharmacists

- Realize that you are only competent in preparing and dispensing chemotherapy regimens if you know the ins and outs – including weaknesses – of the treatment protocol system.
- Make sure that for each course of cytostatics – prescribed in the hospital – there is an up-to-date and authorized treatment protocol that is included in the (cytostatics) prescription system.
- For a follow-up course, check on the basis of the previous prescribed course whether the correct course has been prescribed and whether the intervals between the courses are correct. Look for differences to see if they can be explained.