Prevalence of clinically relevant drug-drug interactions in cancer patients treated with anticancer drugs

A prospective study

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Aim
The aim of the prospective study was to investigate the prevalence of clinically relevant drug-drug interactions (DDIs) among ambulatory cancer patients on anticancer treatment.

Procedure:
- Patients on **new** anticancer therapy were included.
- Medication review based on:
  - Six month medication overview
  - Interview
- DDIs were identified using Micromedex and Drugs.com.
- Medication review by an expert team (3 clin.pharmacologists).
- If a potentially relevant DDI was identified
  - Advise was send to treating (hemato)oncologist
- When the (hemato)oncologist executed the intervention
  → Potential DDI → Clinically relevant DDI!
Results

- 302 patients included, 603 potential DDIs identified
- The 72 interventions were performed in 42 patients (14%)
- Most DDIs were easy to manage!

**Note:** Role of attending physician must not be underestimated!

In 39 patients (13%), an intervention in the medication of the patient was made by the (hemato)-oncologist prior to the recommendations of the clin. pharm. team.

Strong points

- Large study population in prospective setting
- Clinical relevance based on intervention (Highly reliable endpoint!)
- Drug use was based on the “actual” use (including OTC drugs)

Limitations

- Limited clinical effect measured
- Monitoring of toxicity was not feasible
  - But can toxicity always be directly linked to a DDI?
In conclusion:

- Prevalence of clinical interventions due to DDIs (based on medication review by clinical pharmacologists) is high (14%)!
- Most clinical interventions were easy to manage.
- Cave: but be aware of severe drug-drug interactions!

“To optimize cancer treatment”

More collaboration between oncologists and clinical pharmacologists is needed to fully implement medication review in the oncology practice.
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