Oncological Home-Hospitalisation in Belgium - Concept for optimizing ambulant cancer care

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Background:
Home-based cancer treatment offers an integrated and patient-centered approach to deal with the challenges oncological day (care) units are facing. Current cancer therapies require frequent hospital visits that are known to be stressful for the patient and generate a high workload for hospital staff. Furthermore, these hospital visits are associated with significant costs for patients and society, this against the background of increasing focus on more cost-effective healthcare.

Methods:
By relocating specific parts of the oncological treatment process in time and/or to the patients’ homes, we aim to render ambulatory cancer care more efficient and patient-centered.

Day care Hospitalization

<table>
<thead>
<tr>
<th>Home-Hospitalization</th>
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<tbody>
<tr>
<td>Preparatory assessments (i.e. nursing review, toxicity scoring, vital signs, blood collection, IV-line access)</td>
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<tr>
<td>1. Laboratory analysis</td>
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<td>2. Oncologist evaluation &amp; prescription</td>
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<td>3. Pharmacy preparation</td>
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<tr>
<td>Premedication intake (IV/PO)</td>
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<td>Therapy administration: → IV/SC</td>
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<thead>
<tr>
<th>Design</th>
<th>Single-center, Non-randomized, Prospective, Open Clinical Trial</th>
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<tbody>
<tr>
<td>N</td>
<td>50</td>
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1. Pilot Study

Aim
- Evaluating the sensitivity of a number of validated clinical and psychological outcome measuring tools in an ambulant cancer treatment setting (home and hospital)
- Collection of an extensive costs-inventory representing total costs for ambulant cancer treatment.

Design
- Single-center, Non-randomized, Prospective, Open Clinical Trial
- N = 50

2. Randomized Study

Aim
Evaluating Oncological Home-Hospitalization compared to standard outpatient hospital treatment in terms of Patient’s quality of life, Safety and Cost-efficiency

Design
- Single-center, Randomized, Prospective, Open Clinical Trial
- N = min 100*

* Sample size will be calculated based on the outcome-tool that showed largest sensitivity during the pilot study.

3. Transferring expertise to primary healthcare

In case Oncological Home-Hospitalization is positively evaluated, the possibilities to involve primary healthcare within this care model will be explored as well as the required modifications to the current financial model to allow this involvement.

Discussion:
This initiative may provide key stakeholders crucial information on the potential benefits and costs of oncological Home-Hospitalization.

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