An observational prospective study includes all patients admitted (637) of a 150 beds-facility during January 2020. Malnourished patients are detected by:

- **AVICENNE PA**
  - Hypoalbuminemia
  - Body Mass Index (BMI) according to age
  - Phosphor supplementation
- **Dietitians (« gold standard »)**
  - Hypoalbuminemia
  - BMI according to age
  - Evolution of weight

All the detected undernourished patients’ nutritional status is determined by the dietitians. Physician of the Medical Information Department determines the financial gain basing on the Activity-based Funding system.

### Background

AVICENNE is an advanced real time pharmaceutical decision support system based on patient’s data, Pharmaceutical Algorithms (PA) and Pharmacl\textregistered software (Keenturtle). Malnutrition is insufficiently diagnosed, patients undertreated and this comorbidity not enough billed to enhance the hospital stays.

### Aim

The aim of the study is to assess the number of malnourished patients detected by AVICENNE PA in comparison with dietitians standard care and at the same time the gain obtained.

### Results

**Detection**

<table>
<thead>
<tr>
<th>Patients</th>
<th>AVICENNE PA</th>
<th>Dietitians</th>
</tr>
</thead>
<tbody>
<tr>
<td>102</td>
<td>33</td>
<td>48</td>
</tr>
</tbody>
</table>

**Analysis**

<table>
<thead>
<tr>
<th>Not Malnourished</th>
<th>Malnourished</th>
</tr>
</thead>
<tbody>
<tr>
<td>33</td>
<td>69</td>
</tr>
</tbody>
</table>

**Results**

AVICENNE PA did not detect 3 malnourished patients while dietitians detected 24 patients. It induced a gain of 12 500€.

### Conclusion

AVICENNE PA is more performant that it seems because it helps to detect altered nutritional status and holds the gain.

### Materials & Method

- An observational prospective study includes all patients admitted (637) of a 150 beds-facility during January 2020.
- Malnourished patients are detected by:
  - AVICENNE PA
    - Hypoalbuminemia
    - Body Mass Index (BMI) according to age
    - Phosphor supplementation
  - Dietitians (« gold standard »)
    - Hypoalbuminemia
    - BMI according to age
    - Evolution of weight
- All the detected undernourished patients’ nutritional status is determined by the dietitians.
- Physician of the Medical Information Department determines the financial gain basing on the Activity-based Funding system.