1. Background

Dose banding is a system where chemotherapy doses, calculated on BSA, are fitted to pre-defined dose ranges.

<table>
<thead>
<tr>
<th>Band width:</th>
<th>400 mg</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dose bands:</td>
<td>3800 mg</td>
</tr>
<tr>
<td>Standard dose:</td>
<td>4000 mg</td>
</tr>
<tr>
<td>Maximum variance from Rx dose:</td>
<td>± 5%</td>
</tr>
</tbody>
</table>

2. Purpose

With a view to optimizing the circuit of 5-FU infusors from prescription to administration, a feasibility study of dose banding was initiated by the Pharmacy Department. The objectives were 1) to shorten delivery deadlines, 2) to streamline production, 3) to decrease expired infusors.

3. Method

Feasibility study

1.1. Retrospective analysis of 2010’s production
1.2. Presentation of the concept to the medical staff
1.3. Selection of standardised dosage

Implementation of dose banding

4. Results

In 2010, 837 5-FU infusors were produced for 132 patients including 91 different dosages. These infusors included 781 48-hour infusors (93%), 36 5.5-day infusors and 20 7-day infusors. The retrospective analysis home in only on 48-hour infusors.

1.1 Retrospective analysis

- PRODUCTION OF 5-FU INFUSORS 48H IN 2010
  - 781 infusors
  - 52 dosages

- EXPIRED UNADMINISTERED INFUSORS IN 2011
  - 33 expired infusors (n=932, 3.5 %) were destroyed.

1.3 Selection of standardised dosage

- With intervals of ± 5 %, 4 dosages would have covered 92 % of preparations.

2. Implementation of dose banding: THE RESULTS

The study began in July 2012 with the computerization of treatment plans.

After 6 months PRELIMINARY RESULTS are encouraging with:
- 86.5 % (n=384 over 444) of preparations covered
- 391 infusors produced in 4 standardised dosages
- 5 expired infusors (n=444, 1 %) destroyed.

3600 4000 4400 4800

5. Discussion & Conclusion

- Physicochemical STABILITY
- FREQUENCY OF USE
- REPEETIVENESS of prescribed doses
- MODERATE COST

4 tangible elements supporting the implementation of 5-FU dose banding.

This dose banding project with four standardised dosages (± 5 %) was APPROVED by the medical staff. Full results are being analysed after six months of implementation based on the three objectives outlined above.

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