

Dose Banding

1. What is dose banding?

Dose banding specifies a predetermined standard dose that will be dispensed when an individual calculated dose is within a specific range or band. All calculated doses within a certain band are substituted with the standardized dose indicated for that dose range. Capecitabine is an example of a medication that is dispensed using dose banding; the dose calculated for an individual, based on BSA, is rounded to a standardized dose to accommodate the tablet strengths available.

BC Cancer has implemented dose banding for fluorouracil for Gastrointestinal (GI) protocols that include a **46-hour** infusional fluorouracil treatment. For these protocols, the dose bands are in 400 mg increments (for doses between 3000 – 5500 mg) so that dose adjustments are within 200 mg (i.e., a difference of 5% or less) of the calculated dose. Doses outside 3000 – 5500 mg are not dose banded. LV5 Infusors are used to prepare all doses. All other protocols with an infusional fluorouracil treatment component do not include a dose banding alternative, and the Infusor will continue to be prepared with the exact calculated dose.

2. How do you select the correct fluorouracil Infusor?

All gastrointestinal BC Cancer protocols that include a 46-hour infusional fluorouracil treatment have been standardized to include dose banding with Baxter LV5 Infusors™. Other protocols still use different rate Infusors. In all cases, care should be taken to select the correct rate Infusor to allow the fluorouracil dose to be infused over the time interval specified by the protocol.

Infusor Codes:

LV1.5 Infusor (pink): Large Volume 1.5 mL/hour fixed flow rate

LV2 Infusor (yellow): Large Volume 2 mL/hour fixed flow rate

LV5 Infusor (maroon): Large Volume 5 mL/hour fixed flow rate

LV10 Infusor (purple): Large Volume 10 mL/hour fixed flow rate

SV2 Infusor (yellow): Small Volume 2 mL/hour fixed flow rate

For the BC Cancer gastrointestinal protocols that include a 46-hour infusional fluorouracil treatment, the options include:

1. Dose banding alternative

- LV5 Infusors filled to a final volume of 230 mL for all doses

2. Non- dose banding alternative

- LV5 Infusors filled to a final volume of 230 mL for all doses (recommended)
- OR select either
 - LV5 Infusors filled to a final volume of 230 mL for doses greater than 4400mg
 - SV2 Infusors filled to a final volume of 92 mL for doses less than or equal to 4400mg

NOTE: the option to use SV2 Infusors no longer exists in BC Cancer protocols or pre-printed orders. The decision to standardize to LV5 infusors was made to minimize infusor selection errors, provide consistency for patients who may go back and forth between BC Cancer and regional hospitals, and standardize order entry for Clinical and Systems Transformation (CST)

When selecting the appropriate Infusor to dispense a 46-hour infusional fluorouracil treatment, follow the practice determined for the individual facility where you are practicing.

- In BC Cancer Centres use the dose banding alternative:
 - **Dose banding**
 - § select LV5 Infusor

- In [Communities Oncology Network](#) (CON) facilities the practices may vary. CON facilities may choose to use either the dose banding or the non-dose banding alternatives.
 - **Dose banding**
 - § select LV5 Infusor
 - **Non-dose banding**
 - § select LV5 Infusor
 - § OR select either
 - LV5 infusor for doses greater than 4400 mg
 - SV2 infusor for doses less than or equal to 4400 mg

In all cases ensure the Infusor selected will result in the dose infused over 46 hours.

To get a better understanding of how doses are rounded off for dose banding, refer to the fluorouracil orders in the [GIAJFFOX](#) preprinted order. Please refer to the following resources for further information about dose banding at BC Cancer:

- [Systemic Therapy Update Newsletter](#)
 - **September 2014 issue, page 2:** Dose Banding of Infusional Fluorouracil for Gastrointestinal (GI) protocols
 - **October 2014 issue, page 3:** Dose Banding of Infusional Fluorouracil
- **BC Cancer Policy III-140 Dose Banded Chemotherapy Treatments** [Systemic Therapy – [Policies & Procedures](#)]

Further information about Infusors can be found online as outlined below:

- [Management of 5-fluorouracil \(5FU\) Overdose at BC Cancer](#) [Cancer Management Guidelines (Gastrointestinal Cancer) - Fluorouracil Overdose]
- Frequently Asked Questions: Fluorouracil Infusion Devices [[Systemic Therapy Update Newsletter](#) - April 2008, page 1]
- Home Care - Managing Chemotherapy Patients at Home [[Symptom & Side Effect Management Resource Guide](#)] for several additional resources

Revised: Feb 5, 2020