

## Monitoring of Patient Weight and Requirements for Chemotherapy Dose Calculations and Changes; for adults with solid tumours or lymphoma

N.B. The following guidelines apply to non-trial patients – for patients in clinical trials, please refer to the relevant trial protocol.

### Baseline Weight (weight at the start of any new course of chemotherapy)

All patients should be weighed at the beginning of each cycle of chemotherapy. The patient weight and date of weighing should be recorded on the patient's current chemotherapy drug chart (whether paper or electronic) or in their notes.

Body Surface Area (BSA) should be determined for all patients using the Mosteller formula. The patient's actual weight should be used, along with the patient height, to calculate BSA\*. Lean Body Weight should not be used to calculate BSA.

\*For any patient with known fluid accumulation (e.g. ascites, pleural effusion, lower limb oedema), their estimated "dry" body weight (i.e. actual weight minus weight due to accumulated fluid) should be used to calculate BSA.

\*For amputees, there is no nationally-approved practice, or evidence-based advice with regards to calculating BSA. Two reasonable options are to use the pre-amputation height and pre-amputation weight, or the pre-amputation height and the current weight. If in doubt, discuss with the Consultant.

For obese patients, or patients whose BSA is greater than 2.0, it is recommended that full dose chemotherapy is given using the actual BSA, especially for those treatments being given with curative intent or in the treatment of early stage disease.<sup>1</sup>

There is no evidence that short- or long-term toxicity is increased in obese patients receiving full weight-based dosing. There is evidence that selecting reduced doses may result in poorer disease-free and overall survival rates. If in doubt, confirm with the Consultant as to their preferences or practice.

Historically, BSA was calculated to one decimal place. However, Aria (and other electronic prescribing systems) calculate to 2 decimal places, and so this is now the accepted standard practice within the Alliance.

### Weight change from baseline < 10%

No need to recalculate BSA and no chemotherapy dose changes required.

### Weight change from baseline $\geq$ 10% (increase or decrease)

Consider need for referral to dietitian.

Recalculate the BSA.

If BSA has changed, consider the individual clinical situation before deciding whether further doses of chemotherapy should be calculated using the new BSA.

Reason for Update: documentation of BSA calculated to 2 decimal places; statement regarding amputees	Approved by Chair of Alliance Chemotherapy Group: Dr J De Vos
Version: 3	Date: 30.12.15
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Prepared by: S Taylor	Checked by: C Tucker

Examples of points to consider:

- If patient loses weight while receiving potentially curative treatment, do not automatically dose reduce if patient tolerating treatment well at the initial doses.
- If patient gains weight while receiving palliative chemotherapy, consider how patient tolerating treatment, both symptomatically and haematologically, before increasing any doses.
- Consider number of cycles of treatment remaining, the side effect profile of individual drugs, and hence the clinical significance of any dose changes.
- If weight change due to change in volume of ascites, remember to use estimated "dry" body weight for calculations.

Any change in BSA should always be highlighted to the prescriber for the final decision on future dosing.

*N.B. Please note that Aria will automatically re-calculate the dose for a > 10% change in patient weight without any alert*

References: <sup>1</sup>Griggs, J et al: JCO 2012; 30 (13): 1553 - 1561  
Chambers, P et al; Ann Oncol 2012; 23 (3): 748 – 753

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