Tumour dimensions (Core and Non-core)

The size of the tumour or of the largest/dominant invasive tumour focus is a key variable required for breast cancer staging and requires accurate assessment to the nearest mm. Histological tumour size is deemed the gold standard but should be correlated with the gross macroscopic size measurement and where possible with the imaging size.

On rare occasions, the tumour size is obtained from a previous core needle biopsy specimen, as the tumour in the core may be larger than the tumour in the excision specimen or the entire invasive tumour has been removed by the needle sampling procedure.

In the context of extensive surrounding ductal carcinoma in situ (DCIS) (and/or florid or pleomorphic lobular carcinoma in situ (LCIS), the total extent of the entire disease process including all invasive tumour foci and associated DCIS should be provided as the whole tumour size (Figure 1). This information is useful for clinical and radiological correlation and to assist in the determination of completeness of disease excision.

In the context of multiple invasive tumours without associated extensive DCIS, the total extent of disease can be used to indicate the total size of area involved by invasive carcinoma (Figure 2). However for more complex tumours, such as synchronous primary carcinomas in separate quadrants, a pragmatic description of each tumour and its accompanying features will be necessary.

Where microscopic size measurement is not possible or deemed inaccurate, for example prior needle biopsy partial removal or piecemeal resection of the tumour at single or multiple operations (Figure 3), the gross macroscopic, magnetic resonance imaging (MRI), ultrasound, mammographic and clinical tumour size, listed here in priority sequential order, should be used.

It is recognised that the distinction between a separate satellite invasive tumour focus based on a distance of 5 mm or greater is arbitrary, but this distance has been accepted as a pragmatic approach.

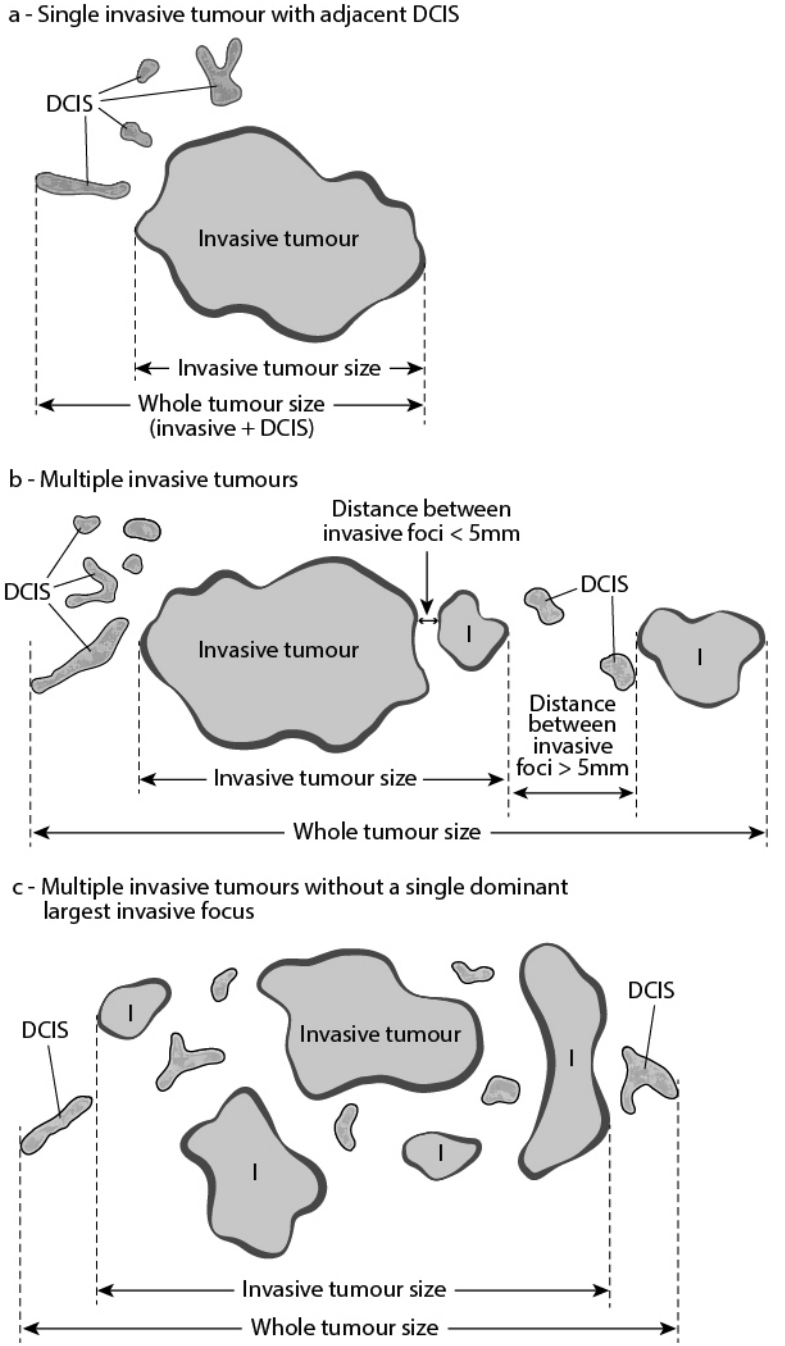

Figure 1: Invasive carcinoma with DCIS.

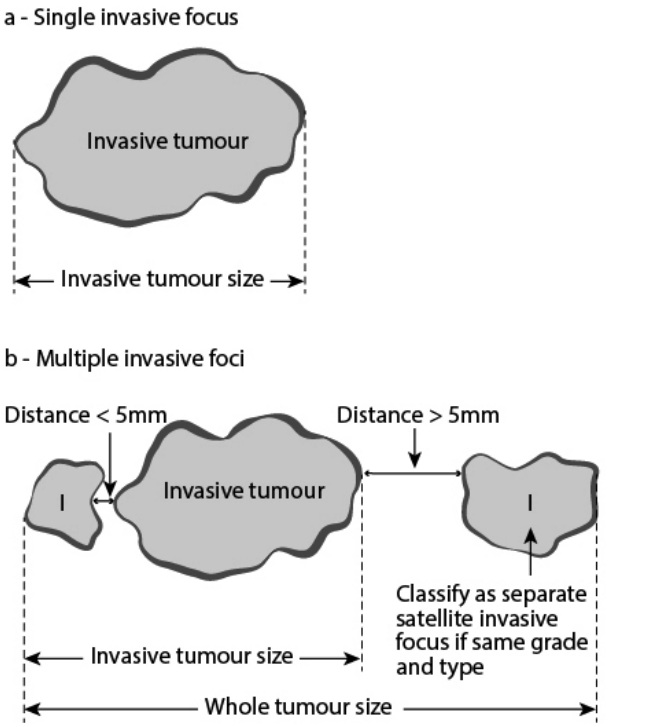

Figure 2: Invasive carcinoma without DCIS. © 2021 International Collaboration on Cancer Reporting Limited (ICCR).

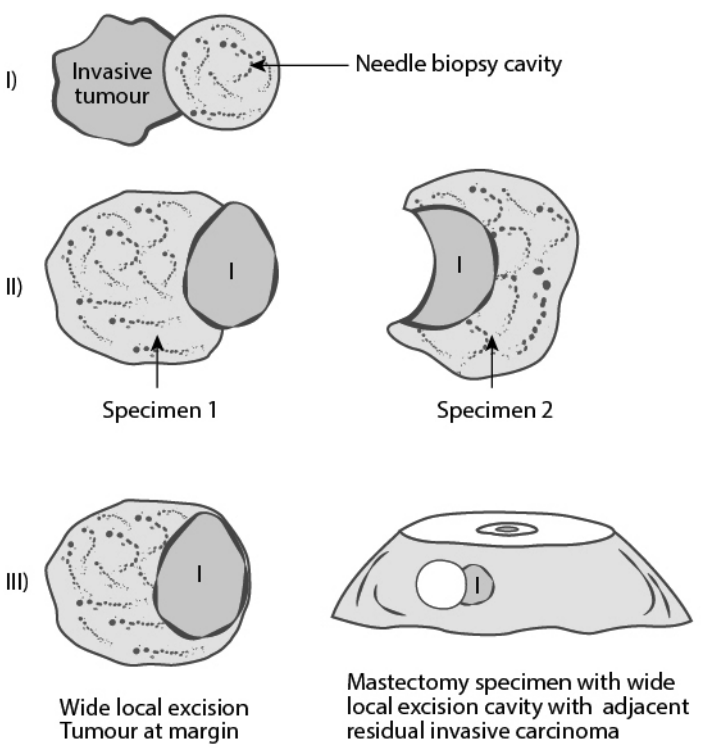

Figure 3: Piecemeal tumour resection by: I) prior partial removal by diagnostic needle biopsy sampling; II) same invasive tumour in two or more portions of tissue; III) tumour resected at multiple operations. © 2021 International Collaboration on Cancer Reporting Limited (ICCR).

***Recommendation*:** Do not add together the maximum tumour dimensions from each separate sample, which is likely to lead to an overestimate of true invasive tumour size. Default to imaging size, or if not available, then clinical size.