

2021 FIGO Staging System for Vulvar Cancer: Summary and comparison with 2009 FIGO Staging System

Authors: Brian Rous¹ Raji Ganesan² Asma Faruqi³, Michael Eden², Sudha Sundar⁴ Andy Nordin⁵ W Glenn McCluggage⁶

¹Cambridge University Hospitals NHS Trust, ²Birmingham Women's Hospital, UK, ³Barts Health NHS Trust, ⁴Pan Birmingham Cancer Centre ⁵Clinical Advisor for National Cancer Registration and Analysis Service (NCRAS) ⁶Royal Group of Hospitals Trust, Belfast

Background:

- Until now FIGO staging for vulvar cancer has been based mainly on clinical and pathological examination.
- In the 2021 staging system, this approach has been revised to allow imaging (r), where available, to assign stage.
- The revised staging is summarised below together with a comparison with the 2009 FIGO staging system and comments indicating areas of change.
- Salient changes:
 - ***New method for measuring depth of invasion. The method has been acknowledged by the FIGO gynaecologic oncology committee as 'practical but not scientific'.***
 - ***Stage IIIA now includes extension to upper 2/3rd urethra or vagina or to bladder or rectal mucosa – all previously Stage IVA***
 - ***Any number of involved lymph nodes as long as maximum dimension of metastasis ≤5mm – Stage IIIA***
 - ***Any number of lymph nodes if size of metastasis >5mm – Stage IIIB***
 - ***Lymph nodes containing macro and/or micrometastases are considered involved. Isolated tumour cells do not change the stage but their presence should be recorded.***

It has been agreed by the BAGP and BGCS to implement the 2021 FIGO staging system in the UK from 1 January 2022. Data submitted to COSD for cases prior to 1 January 2022 should include FIGO 2009 stage and cases on or after 1 January 2022 should include FIGO 2021 stage

Stage I (2021): Carcinoma strictly confined to the vulva

2009 FIGO stage: Description	2021 FIGO stage: Description	Comment
<i>Tumour confined to the vulva</i>	<i>Tumour confined to the vulva</i>	No change in criteria; note methodology change for measuring depth of invasion*.
<i>IA: Tumour size \leq 2cm and stromal invasion \leq 1mm</i>	<i>IA: Tumour size \leq 2cm and stromal invasion \leq 1mm</i>	
<i>IB: Tumour size > 2cm or stromal invasion > 1mm</i>	<i>IB: Tumour size > 2cm or stromal invasion > 1mm</i>	
<p>*Method for measurement of depth of invasion has been changed FIGO 2021 – The depth of invasion is measured from the basement membrane of the deepest, adjacent, dysplastic, tumour-free rete ridge (or nearest dysplastic rete peg) to the deepest point of invasion.</p> <p>FIGO 2009 - The depth of invasion is defined as the measurement of the tumour from the epithelial–stromal junction of the adjacent most superficial dermal papilla to the deepest point of invasion.</p>		



Stage II (2021): Carcinoma extends to adjacent structures, nodes not involved

2009 FIGO stage: Description	2021 FIGO stage: Description	Comment
<i>Tumour of any size with extension to adjacent structures (1/3 lower urethra, 1/3 lower vagina, 1/3 lower anus) with negative nodes</i>	<i>Tumour of any size with extension to adjacent structures (1/3 lower urethra, 1/3 lower vagina, 1/3 lower anus) with negative nodes</i>	- No change

Stage III (2021): Carcinoma extends to adjacent perineal structures and/or any number of nonfixed, nonulcerated lymph node/s

2009 FIGO stage: Description	2021 FIGO stage: Description	Comment
<i>IIIA: Tumour of any size with or without extension to adjacent perineal structures (1/3 lower urethra, 1/3 lower vagina, anus) with positive inguino-femoral lymph nodes (i) With 1 lymph node metastasis (≥ 5 mm), or (ii) 1-2 lymph node metastasis(es) (< 5 mm)</i>	<i>IIIA: Tumour of any size with extension to upper part of adjacent perineal structures, or with any number of nonfixed, nonulcerated lymph node. Tumour of any size with disease extension to upper two-thirds of the urethra, upper two-thirds of the vagina, bladder mucosa, rectal mucosa, or regional lymph node metastases ≤ 5 mm</i>	<p>- Now includes: - upper 2/3 urethra, upper 2/3 vagina, bladder mucosa or rectal mucosa (previously all stage IVA).</p> <p>- any number of lymph nodes as long as ≤ 5mm No longer includes: - lymph node metastasis in a</p>



		<i>single node >5mm (now stage IIIB)</i>
<i>IIIB: (i) With 2 or more lymph node metastases (≥ 5 mm), or (ii) 3 or more lymph node metastases (< 5 mm)</i>	<i>IIIB: Regional lymph node* metastases > 5 mm</i>	<i>- Now includes: - any number of lymph nodes if size of metastasis > 5 mm Now excludes: - 3 or more lymph nodes if size is ≤ 5 mm (now stage IIIA)</i>
<i>IIIC: With positive nodes with extracapsular spread</i>	<i>IIIC: Regional lymph node metastases with extracapsular spread</i>	<i>- No change</i>

**Regional refers to inguinal and femoral lymph nodes*

Isolated tumour cells do not change the stage but their presence should be recorded.

Stage IV (2021): Carcinoma has extended beyond the true pelvis

2009 FIGO stage: Description	2021 FIGO stage: Description	Comment
IVA: Tumour invades any of the following: (i) upper urethral and/or vaginal mucosa, bladder mucosa, rectal mucosa, or fixed to pelvic bone, or (ii) fixed or ulcerated inguinofemoral lymph nodes	IVA: Disease fixed to pelvic bone, or fixed or ulcerated regional lymph node metastases	- Now excludes: upper 2/3 urethra or upper 2/3 vagina, bladder mucosa or rectal mucosa (now stage IIIA).
IVB: Any distant metastasis including pelvic lymph nodes	IVB: Any distant metastasis	

References:

Olawaiye AB, Cotler J, Cuello MA, Bhatla N, Okamoto A, Wilailak S, Purandare CN, Lindeque G, Berek JS, Kehoe S. FIGO staging for carcinoma of the vulva: 2021 revision. *Int J Gynaecol Obstet.* 2021 Oct;155(1):43-47

van den Einden LC, Massuger LF, Jonkman JK, Bult P, de Hullu JA and Bulten J (2015). An alternative way to measure the depth of invasion of vulvar squamous cell carcinoma in relation to prognosis. *Mod Pathol* 28(2):295-302

Skala SL, Ebott JA, Zhao L and Lieberman RW (2020). Predictive Value of an Alternative Strategy for Measuring Depth and Size of Stage 1 Vulvar Squamous Cell Carcinoma. *J Low Genit Tract Dis* 24(3):265-271