

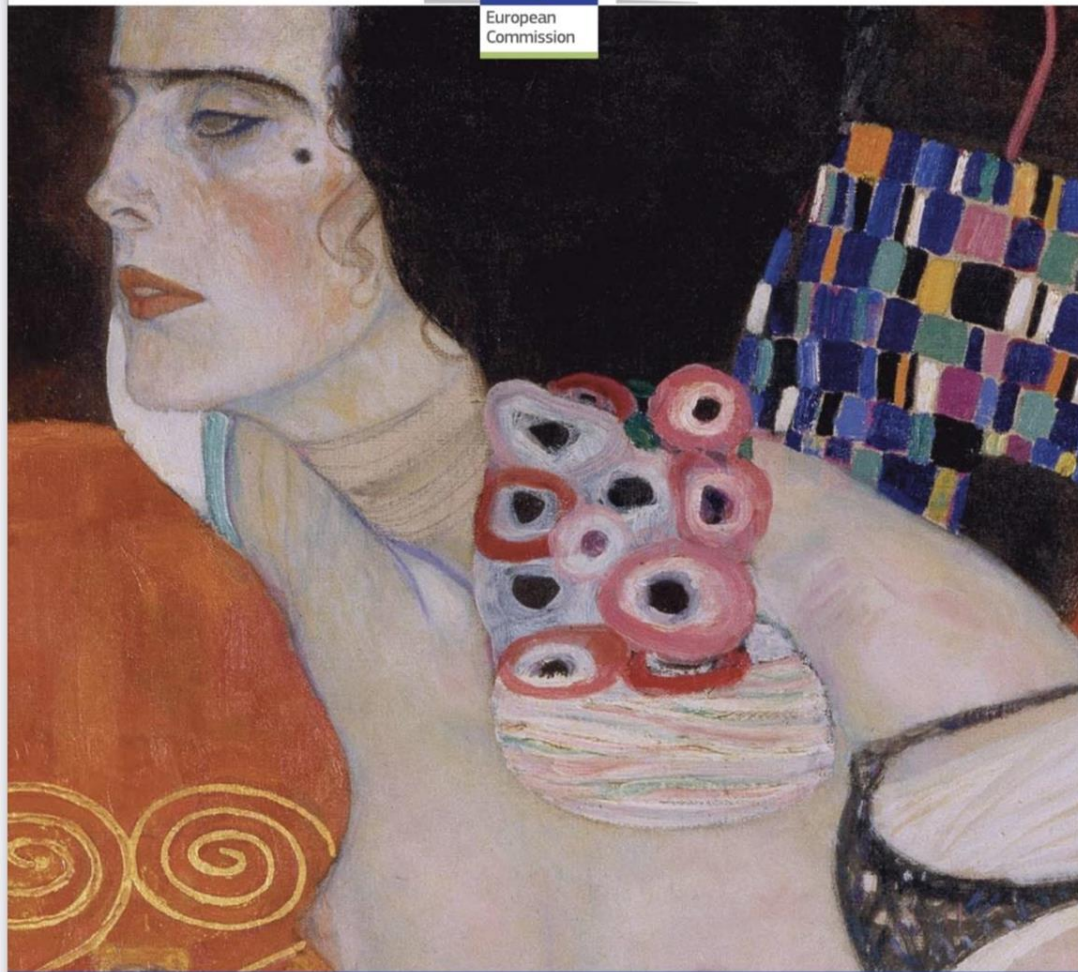
Специфика при хистопатологичната оценка при скринингови програми

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Въведение

- Приемането на официални скринингови програми води до подобрене не само при лечението на ранни, но и напреднали форми на заболявания чрез въвеждането на насоки, стандарти за качество, външна оценка на качество и одит.
- В скрининговите програми трябва да се разработят общи диагностични стандарти, за да се гарантира качество, да се разпознаят области, в които все още липсват достатъчно доказателства и да се инициират висококачествени проучвания, за да отговорите на тези въпроси.



European guidelines for quality assurance in breast cancer screening and diagnosis

Fourth edition – Supplements

Health and Consumers

Produced by the European Working Group on Breast Screening Pathology

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European guidelines for
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and diagnosis

Fourth Edition

Supplement

S2

Pathology update

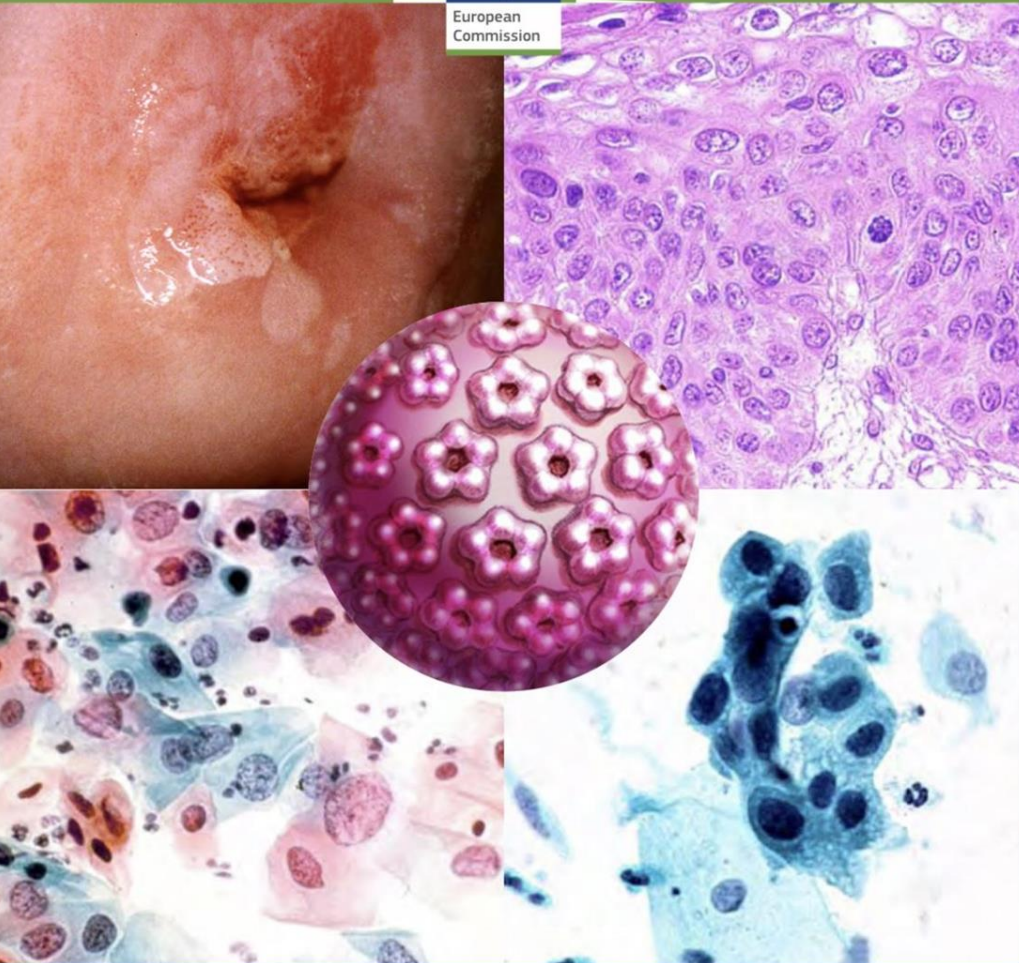
Quality assurance guidelines for pathology

Editor
C.A. Wells

	Diagnosis			
Feature	Columnar cell change	Columnar cell hyperplasia	Columnar cell lesion with atypia **	ADH/DCIS
Topography	TDLU, acini may be mildly dilated or of normal size	TDLU, acini may be mildly dilated or of normal size	TDLU, often microcystically dilated acini	TDLU +/- adjacent ducts
Shape of acinar spaces	Irregularly shaped luminal margin	Irregularly shaped luminal margin	Often rounded acinar spaces, with smooth inner margin	Often rounded acini, but with complex structures extending into lumen (see Architecture, below)
Architecture	Flat	Tufts and mounds	Flat or tufted/mounds, not complex	Complex with micropapillary or cribriform structures
Stratification/ multi-layering	Not present	Present	May be present	May be present
Luminal secretions often with micro-calcifications	Present	Present	Present	May be present
Nuclear size	Small to medium	Small to medium	Small to medium	Small to medium
Nuclear shape	Oval, elongated	Oval, elongated	Often, but not always, rounded	Rounded
Nuclear texture	Bland	Bland	Speckled chromatin pattern may be present	Speckled chromatin pattern is common
Pleomorphism*	Uniform	Uniform	Uniform to moderately pleomorphic	Uniform
Position of nuclei within cell	Basally placed	Basally placed	Often central	Central
Nucleoli	Not conspicuous	Not conspicuous	Evident	May be evident
Mitoses	Generally absent	Generally absent	Generally scarce	Generally scarce
Extent	May be focal or extensive	May be focal or extensive	May be a focal area within background of non-atypical CCL	May be focal area within background of non-atypical CCL; by definition, ADH is small/microfocal

Table 2: Molecular typing of breast cancer based on common immunohistochemical markers (Abd El-Rehim et al., 2005; Goldhirsch et al., 2011)

Molecular intrinsic subtype	Clinico-pathological definition	ER	PR	HER2	Ki67	Basal markers*
Luminal A	Luminal A	+	+ or -	-	Low	-
Luminal B	Luminal B (HER2 negative)	+	+ or -	-	High	-
Luminal B	Luminal B (HER2 positive)	+	+ or -	Overexpressed	Low or high	-
HER2	HER2 positive (non-luminal)	-	-	Overexpressed	Usually high	+/-
Basal	Triple negative (ductal)	-	-	-	Usually high	+



3

Methods for Screening and Diagnosis

- 3.1** **Executive summary**
- 3.2** **Assessment of the performance of screening tests: principles and criteria**
- 3.3** **Conventional cervical cytology**
 - 3.3.1** **Description of conventional cervical cytology**
 - 3.3.1.1 Principles of conventional cytology
 - 3.3.1.2 Reading a cervical smear
 - 3.3.1.3 Screening technique and localization
 - 3.3.1.4 Cytological interpretation and reporting
 - 3.3.1.5 Clinical applications of cervical cytology
 - 3.3.1.6 Quality of conventional smears
 - 3.3.2** **Performance of conventional cervical cytology**
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 - 3.4.1** **Description**
 - 3.4.2** **Rationale for liquid-based cytology**
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 - 3.4.3.1 Comparison of the test characteristics of liquid-based cytology with the conventional Pap-smear
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 - 3.4.3.3 Pilot projects conducted in Scotland and England
 - 3.4.3.4 Influencing factors

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Laboratory Guidelines and Quality Assurance Practices for Cytology

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- 4.2 Introduction
- 4.3 Personnel and organization
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 - 4.3.2 Requirements for cyto-technologists
 - 4.3.2.1 Cyto-technologist
 - 4.3.2.2 Senior cyto-technologist
 - 4.3.3 Requirements for other technical laboratory personnel
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 - 4.3.6 Final responsibility
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 - 4.4.1 Buildings, rooms and furniture
 - 4.4.2 Equipment for staining, microscopes, record systems and teaching materials
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 - 4.5.1 Laboratory preparation
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 - 4.5.2.1 Initial assessment
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 - 4.7.1 Internal quality management
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 - 4.7.1.2 Analytical quality management (cytology)
 - 4.7.1.3 Internal continuing education
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- 4.8 Communication
 - 4.8.1 Other laboratories
 - 4.8.2 General practitioners, gynaecologists and other sample-takers
 - 4.8.3 Health authorities
 - 4.8.4 Patients
- 4.9 References

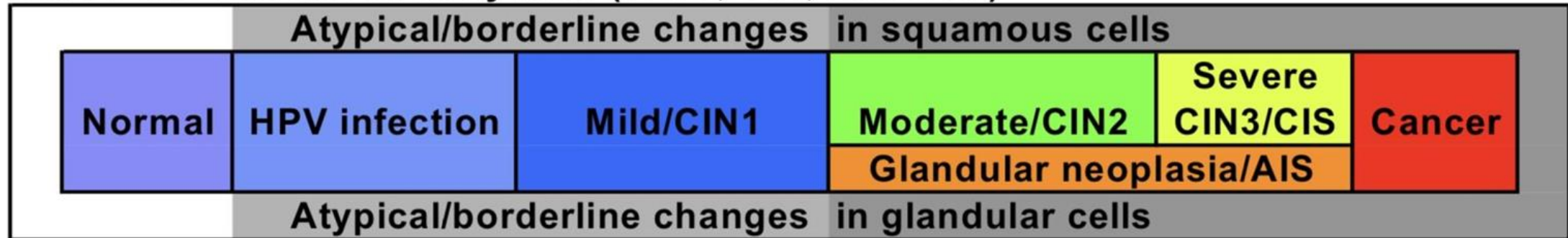
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Techniques and Quality Assurance Guidelines for Histopathology

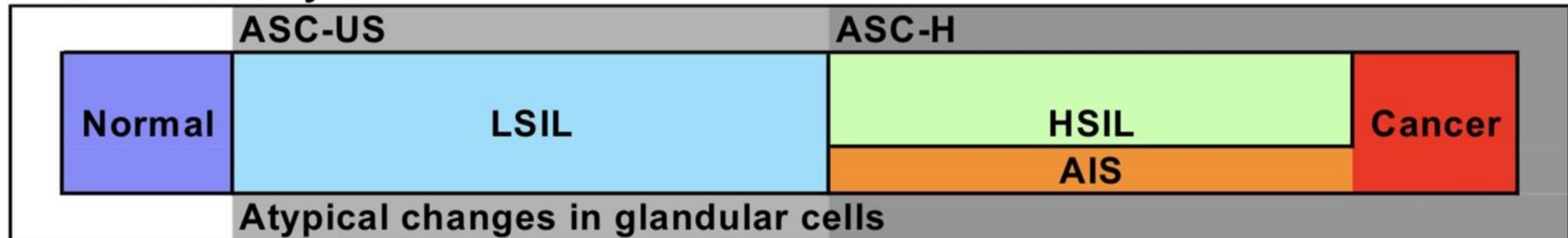
- 5.1 Executive summary
- 5.2 Introduction
- 5.3 Punch biopsies
 - 5.3.1 Diagnostic goal
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Препоръки относно терминология при цервикална цитология

Three-tier classification system (WHO, CIN, NHSCSP)



The Bethesda system



Papanicolaou	WHO	CIN (Richart, 1973)	TBS 1991 (Luff, 1992)	TBS 2001 (Solomon & Nayar, 2003)
I	Normal			Negative for epithelial abnormality
II	Atypia		Infection, reactive repair	
			ASCUS	
	ASCUS	ASC-H		
	Atypical glandular cells		AGUS	
III	Mild dysplasia	Condyloma	LSIL	LSIL
		CIN I		
	Moderate dysplasia	CIN II	HSIL	HSIL
IV	Severe dysplasia	CIN III		
	CIS			
	AIS	CGIN	AGUS	AIS
V	Invasive carcinoma			



Table 2. The 2001 Bethesda system: terminology for reporting the results of cervical cytology²

SPECIMEN ADEQUACY

1. Satisfactory for evaluation (note presence/absence of endocervical/ transformation zone component)
2. Unsatisfactory for evaluation . . . (specify reason)
 - Specimen rejected/not processed (specify reason)
 - Specimen processed and examined, but unsatisfactory for evaluation of epithelial abnormality because of (specify reason)

GENERAL CATEGORIZATION (Optional)

1. Negative for intraepithelial lesion or malignancy
2. Epithelial cell abnormality
3. Other

INTERPRETATION/RESULT

1. Negative for Intraepithelial Lesion or Malignancy
 - Organisms
 - Trichomonas vaginalis
 - Fungal organisms morphologically consistent with Candida species
 - Shift in flora suggestive of bacterial vaginosis
 - Bacteria morphologically consistent with Actinomyces species
 - Cellular changes consistent with herpes simplex virus
 - Other non-neoplastic findings (Optional to report; list not comprehensive)
 - Reactive cellular changes associated with inflammation (includes typical repair)
 - Radiation
 - Intrauterine contraceptive device
 - Glandular cells status posthysterectomy
 - Atrophy
2. Epithelial Cell Abnormalities
 - Squamous cell
 - Atypical squamous cells (ASC) of undetermined significance (ASC-US)
 - Atypical squamous cells cannot exclude HSIL (ASC-H)
 - Low-grade squamous intraepithelial lesion (LSIL), encompassing: human papillomavirus/mild dysplasia/cervical intraepithelial neoplasia (CIN) 1
 - High-grade squamous intraepithelial lesion (HSIL), encompassing: moderate and severe dysplasia, carcinoma in situ; CIN 2 and CIN 3
 - Squamous cell carcinoma
 - Glandular cell
 - Atypical glandular cells (AGC) (specify endocervical, endometrial, or not otherwise specified)
 - Atypical glandular cells, favor neoplastic (specify endocervical or not otherwise specified)
 - Endocervical adenocarcinoma in situ (AIS)
 - Adenocarcinoma
3. Other (List not comprehensive)
 - Endometrial cells in a woman > 40 years of age

European guidelines for quality assurance in colorectal cancer screening and diagnosis. First Edition

Quality assurance in pathology in colorectal cancer screening and diagnosis



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Authors

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Institutions

Institutions are listed at the end of article.

Category	Diagnosis
1	Negative for neoplasia
2	Indefinite for neoplasia
3	Mucosal low grade neoplasia Low grade adenoma Low grade dysplasia
4	Mucosal high grade neoplasia High grade adenoma/dysplasia Noninvasive carcinoma (carcinoma in situ) Suspicious for invasive carcinoma Intramucosal carcinoma
5	Submucosal invasion by carcinoma

Table 7.1 Adaptation of the revised Vienna classification¹ for colorectal cancer screening.

1. NO NEOPLASIA:²

Vienna Category 1 (Negative for neoplasia)

2. MUSCOSAL LOW GRADE NEOPLASIA:

Vienna category 3 (Mucosal low-grade neoplasia

Low-grade adenoma

Low-grade dysplasia);

Other common terminology

mild and moderate dysplasia;

WHO: low-grade intra-epithelial neoplasia

3. MUCOSAL HIGH GRADE NEOPLASIA:

Vienna: Category 4.1 – 4.4 (Mucosal high grade neoplasia
high-grade adenoma/dysplasia

Non-invasive carcinoma (carcinoma *in situ*)

Suspicious for invasive carcinoma

Intramucosal carcinoma);

Other common terminology

severe dysplasia

high-grade intraepithelial neoplasia;

WHO: high-grade intraepithelial neoplasia

TNM: pTis

4. CARCINOMA invading the submucosa or beyond:

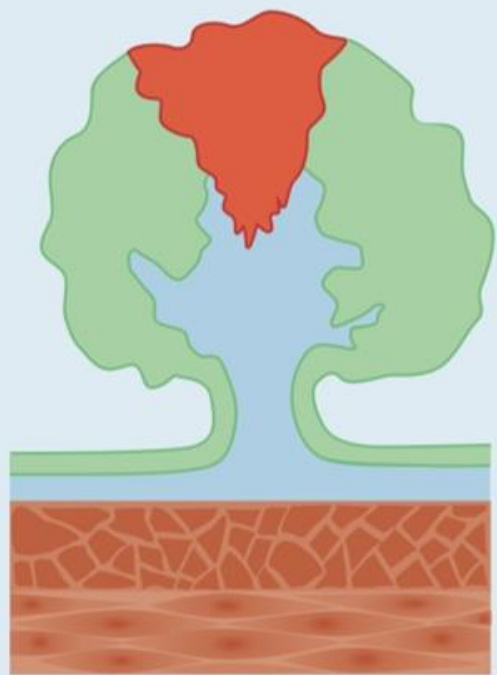
4a. Carcinoma confined to submucosa

Vienna: Category 5 (Submucosal invasion by carcinoma);

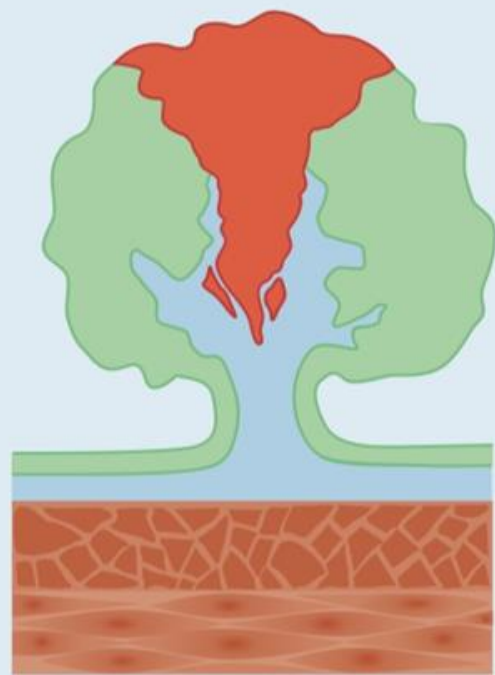
TNM: pT1

4b. Carcinoma beyond submucosa

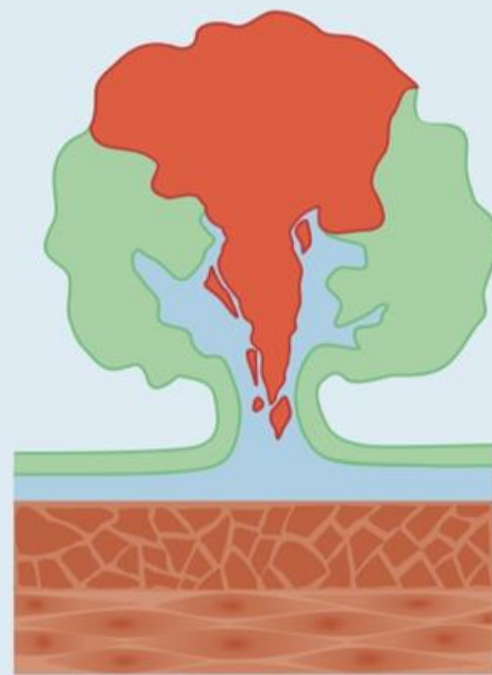
TNM: pT2-T4



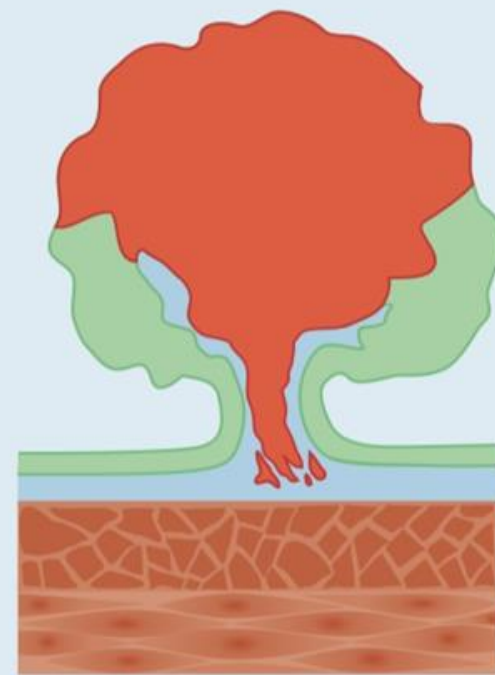
Level 1:
Invasion of the submucosa but limited to the head of the polyp.



Level 2:
Invasion extending into the neck of polyp.



Level 3:
Invasion into any part of the stalk.



Level 4:
Invasion beyond the stalk but above the muscularis propria.

Fig. 7.2 Haggitt levels of invasion in polypoid carcinomas.

Table 7.2 Modified Dukes stage.

Dukes A	Tumour penetrates into, but not through the muscularis propria (the muscular layer) of the bowel wall.
Dukes B	Tumour penetrates into and through the muscularis propria of the bowel wall but does not involve lymph nodes.
Dukes C	C1: There is pathological evidence of adenocarcinoma in one or more lymph nodes but not the highest node. C2: There is pathological evidence of adenocarcinoma in the lymph node at the high surgical tie.
Stage D	Tumour has spread to other organs (such as the liver, lung or bone).

Заклучение

- В мултидисциплинарен процес е възможно постигане на широк консенсус върху препоръки за осигуряване на качество в патологията при скрининг и диагностика на раковите заболявания.
- Следвайки тези препоръки има потенциал за подобряване на контрола на рак в България чрез подобряване на качеството и ефикасността на процеса на скрининг, приканвайки за менажиране на открити случаи.
- Наличието на единна класификация за докладване на идентифицирани патологични лезии в програмите за скрининг в Европа също има потенциала да подобри международното сътрудничество и обмена на опит в подобряване на качеството и ефективността на грижите за раковите заболявания.