Pan Birmingham NHS
Cancer Network

Minimum Dataset for the Histopathological Reporting of Atypical Hyperplasia and Adenocarcinoma in Endometrial Biopsy and Curettage Specimens and for Endometrial Cancer in Hysterectomy Specimens

Version History

Version	Date	Summary of Change/Process
0.1	20/05/09	Document circulated to Gynae and Cellular Pathology NSSGs for consultation
0.1	27/05/09	Both groups agreed to adopt Royal College guidance
1.0	10/06/09	Adopted by the Network Governance Committee Guidelines Sub Group
2.0	April 2012	Prepared for distribution and uploaded to Pan Birmingham Cancer Network website

Date Approved by Network Governance	**April 2012**

Date for Review	**April 2015**

This is a national document produced by the Royal College of Pathologists (www.rcpath.org) and is the latest version.

1. Scope of the guideline

This document is to inform and assist with the reporting of cervical neoplasia.

2. Guideline background

At Network Site Specific Group (NSSG) meetings the group acknowledged the need for pathology guidance for gynaecology. The NSSG recommended the guidance produced by the Royal College of Pathologists (RCP) and both Gynae and Cellular Pathology NSSGs agreed to adopt this guidance.

Monitoring of the guideline

Adherence to the Network guidelines may from time to time be formally monitored.

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References

http://www.rcpath.org/resources/pdf/g070_vulvadataset_jun08.pdf

Approval Signatures

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The Royal College of Pathologists

Standards and minimum datasets for reporting cancers

Minimum dataset for the histopathological reporting of atypical hyperplasia and adenocarcinoma in endometrial biopsy and curettage specimens and for endometrial cancer in hysterectomy specimens

March 2001

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*Cluzeau F, Littlejohns P, Grimshaw J, Feder G. *Appraisal instrument for clinical guidelines*. St George's Hospital Medical School, London, May 1997.

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STANDARDS AND MINIMUM DATASETS FOR REPORTING CANCERS

Since the publication of the Calman-Hine Report, *A Policy Framework for Commissioning Cancer Services*, several national groups and committees have begun to define the standards that Cancer Centres and Units should attain.

- The *Department of Health Clinical Outcomes Group* is drawing up guidance on clinical services for site-specific cancers. This group employs a very elaborate, open and evidence-based approach and has already published guidelines for breast and colorectal cancers, including their pathological reporting.[1,2] Guidance on lung cancer will follow shortly.
- The *NHS Advisory Committee on Cancer Registration* and the *UK Association of Cancer Registries* are also making recommendations on the collection and coding of clinical and pathological data of diagnostic and prognostic importance for epidemiological and strategic purposes. The cancer registries are improving their links with histopathology departments that they see as timely, convenient and reliable sources of cancer data.
- The *Royal Colleges' Intercollegiate Committee on Oncology* has stated its intention to produce interdisciplinary guidance on diagnosing and managing patients with common cancers.

In addition, many working groups and committees throughout the UK are drawing up local guidelines and defining working practices and standards, including those for pathology.

The Royal College of Pathologists (RCPath) seeks an active role in this process. The RCPath Specialty Advisory Committee (SAC) on Histopathology approved the formation of a small working group to link with the various national committees and to produce a series of succinct evidence-based publications defining minimum standards of reporting common cancers to ensure that pathological standards are defined by histopathologists and to prevent the proliferation of numerous diverse and possibly conflicting local guidelines. There has been extensive consultation with specialist and general histopathologists, with multidisciplinary groups and societies, and with cancer registries in order to achieve the broadest possible consensus.

The standards and datasets are being published separately as individual booklets. This will have the major advantages of speed, by enabling documents to be published individually as soon as they become available, and ease of updating. They are also being included in the College's website (www.rcpath.org.uk).

All these documents are evidence-based and define the minimum standards for reporting each group of tumours. They conform to a standard format and include a proforma that is intended to function as an *aide memoire* when reporting specific tumours. Although the data in the proforma may be presented as or supplemented by free text, the use of proformas in histopathological reporting is recommended: published audits have shown that they are very effective in ensuring that all necessary data are provided.[3,4]

This document will be reviewed in 2002 and before that if new evidence emerges.

Further copies of the reporting forms are available at the end of this booklet and this dataset can also be downloaded from the College website (www.rcpath.org).

The RCPath Working Group on Cancer Services recommends that:

- the minimum datasets for reporting tumours are used in the system of standard setting, data collection, audit and feedback for those involved in caring for these patients
- histopathology laboratories nominate a lead pathologist for each of the main cancers with responsibility for liaising with relevant local committees and clinicians and ensuring that the relevant cancers are examined, sampled and reported appropriately and in a consistent fashion
- histopathologists should be members of multidisciplinary teams dedicated to the diagnosis and management of patients with specific cancers (and be involved in auditing the service)
- the SNOMED coding system is used to achieve as much uniformity as possible from centre to centre and to facilitate reliable cancer registration. Either the 1979 or 1993 version of SNOMED can be used as currently there is no clear consensus for using one or the other
- histopathologists reporting cancers should participate in appropriate EQA schemes
- Cancer Centres and Units should be supported only by laboratories accredited with Clinical Pathology Accreditation (UK) Ltd and staffed in accordance with the recommendations of the Royal College of Pathologists and the Association of Clinical Pathologists

Anyone wishing to make specific or general comments on any of the documents should contact Professor Mike Wells, Pathology, Section of Oncology and Pathology, Division of Genomic Medicine, Beech Hill Road, Sheffield S10 2RX. Email: m.wells@sheffield.ac.uk

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MINIMUM DATASET FOR THE HISTOPATHOLOGICAL REPORTING OF ATYPICAL HYPERPLASIA AND ADENOCARCINOMA IN ENDOMETRIAL BIOPSY AND CURETTAGE SPECIMENS AND FOR ENDOMETRIAL CANCER IN HYSTERECTOMY SPECIMENS

Co-ordinator – Professor Michael Wells

Careful reporting of endometrial biopsy and curettage specimens is important because the histological diagnosis will determine the future management of the individual patient.

The careful reporting of hysterectomy specimens removed for endometrial cancer is important for the following reasons:

1. The FIGO (International Federation of Obstetrics and Gynaecology) surgical staging system for endometrial cancer is based on histopathological findings in the uterus, including myometrial invasion, and is important in determining prognosis and treatment post-hysterectomy.[1]

2. This staging system is based on the findings in the uterus, and because deep myometrial or serosal involvement cannot always be visualised grossly, it is imperative that the pathologist adequately samples the uterine corpus and cervix for microscopic examination.

3. Indicators of poor prognosis in endometrial cancer include high histological tumour grade[2] deep myometrial invasion,[2] unfavourable histological tumour sub-types,[3,4] lower uterine segment involvement by tumour[2] and myometrial vascular space invasion.[5]

4. The presence or absence of endometrial hyperplasia in the adjacent non-neoplastic endometrium should also be included in the surgical pathology report, because the more aggressive carcinoma sub-types are unassociated with hyperplasia.[6,7]

5. Determination of the depth of invasion is especially important in patients with tumour confined to the uterine corpus: patients with tumour limited to the endometrium, invasion of less than one half of the myometrium, and invasion of more than one half of the myometrium are FIGO stage IA, IB and IC respectively.[1] In addition to their prognostic implications, the tumour grade and depth of myometrial invasion are often used during therapy planning. Intraoperatively, some gynaecological oncologists determine the extent of surgical staging and lymph node dissection based on these two factors. Post-operatively, adjuvant therapy (radiotherapy) may be indicated in the presence of a high grade or deeply invasive lesion.

ENDOMETRIAL BIOPSY CURETTAGE SPECIMENS

In endometrial biopsy and curettage specimens the following questions should be addressed.

1. Is there atypical hyperplasia?
   Note: Recent studies have shown that in a high proportion (40%) of cases of atypical hyperplasia diagnosed on biopsy, the subsequent hysterectomy specimen will show adenocarcinoma.[8]

2. Is there endometrial adenocarcinoma? If so the following features should be recorded:
   (i) is the tumour endometrioid or non-endometrioid (e.g. high grade serous)
   (ii) tumour grade
   (iii) the nature of the adjacent non-malignant endometrium (e.g. hyperplasia or atypical hyperplasia/intraepithelial neoplasia).

National Minimum Dataset – Endometrial Cancer Histopathology Report

Surname ..... Forenames ..... Date of birth ..... Sex.....

Hospital ..... Hospital No ..... NHS No .....

Date of request ..... Date of reporting..... Report No.....

Pathologist ..... Surgeon .....

Gross description

Dimensions of uterus: Length .....mm Transverse .....mm Antero-posterior.....mm

Maximum dimensions of tumour: .....mm

Is there obvious myometrial invasion: Yes ☐ No ☐

Histology

Type: Endometrioid ☐ Serous ☐ Clear cell ☐
MMMT ☐ other (please specify) .....

Grade (FIGO): (only applies to endometrioid carcimona) I II III N/A

Myometrial invasion: None ☐ <50% ☐ >50% ☐

Is there microscopic involvement of:

the cervical stroma: Yes ☐ No ☐

the appendages: Yes ☐ No ☐

the serosa: Yes ☐ No ☐

Is there lymphovascular invasion: Yes ☐ No ☐

Is there associated endometrial hyperplasia: No ☐ Yes ☐ Simple ☐ Complex☐ Atypical ☐

Normal: right ovary ☐ left ovary ☐ right tube ☐ left tube ☐

Abnormal: (please specify) .....

Pelvic nodes (including obturator, internal and external iliac)	right	left	**Common iliac nodes**	right	left
total number of nodes retrieved	……..	……..	total number of nodes retrieved	……..	……..
lymph nodes with tumour deposits	……..	……..	lymph nodes with tumour deposits	……..	……..

Para-aortic nodes: not sampled ☐ positive ☐ negative ☐

Peritoneal washings: not sampled ☐ positive ☐ negative ☐

Comments

SNOMED codes

T82000 Uterus (endometrium) M81403 (Adenocarcinoma) M84413 (Serous adenocarcinoma)
M83103 (Clear cell carcinoma) M89503 (Mixed Müllerian tumour)
T08000 Lymph node M81406 (Metastatic carcinoma)

Signature ..... Date...../...../.....

NOTES ON RECORDING DATA ITEMS

A protocol for the histopathological reporting of endometrial carcinoma is provided. As far as possible the maximum dimension and presence of myometrial and cervical disease should be recorded from macroscopic examination of an endometrial carcinoma.

Assessment of myometrial invasion

The uterus should be cut in parallel slices coronally. Measure maximum depth of myometrial invasion, the overall thickness of the myometrium and the minimum distance of the tumour from the serosal surface in millimetres. Blocks of the tumour should be full thickness through the uterus so that the depth of myometrial invasion can be assessed histologically. Blocks should be labelled to indicate where they are taken from. If the myometrium is too thick for a single cassette, use two cassettes with appropriate designations.[9] A recent study has shown that pathologists have difficulty determining what is myometrial invasion. The main problems are irregularity of the endomyometrial junction and extension of tumour into superficial adenomyosis.[10]

Histological examination

Endometrial carcinoma represents a biologically and morphologically diverse group of tumours with differing pathogenesis and clinical aggressiveness. Several studies over the past years have shown the importance of recognising specific subtypes and accurately grading carcinomas to predict prognosis and planning of treatment. The clinical relevance of subtyping and grading endometrial carcinomas is reflected in the revised World Health Organization (WHO) classification[11] and the International Federation of Gynecology and Obstetrics (FIGO) staging system.[12–14] It is recommended that the pathologist uses the classification of tumours shown and bases the grading of endometrioid carcinomas on the recommendations of FIGO.[12–14] That is, the diagnosis should be based partly on the glandular morphology of the neoplasm and partly on the nuclear grade.

This minimum dataset has been seen and approved by the British Association of Gynaecological Pathologists. We strongly recommend its use as a minimum dataset.

World Health Organization (WHO) classification of endometrial carcinoma

Endometrioid adenocarcinoma, NOS
- Variants
- Ciliated cells
- Secretory cells

Adenocarcinoma, NOS, with squamous differentiation
Mucinous adenocarcinoma
Serous adenocarcinoma
Clear cell adenocarcinoma
Squamous carcinoma
Undifferentiated carcinoma (large and small cell type)
Mixed carcinoma
Metastatic carcinoma

Architectural grading of endometrioid adenocarcinoma (FIGO)

Grade I	5% or less of the tumour shows a solid pattern.
Grade II	Between 5 and 50% of the tumour exhibits solid growth.
Grade III	More than 50% of the tumour shows a solid growth pattern.

It is important to avoid areas with squamous differentiation and evaluate only glandular areas.

Nuclear grading

Grade 1	Oval/elongated nuclei, fine chromatin, small nucleoli, few mitoses.
Grade 2	Features between 1 and 3.
Grade 3	Enlarged/pleomorphic nuclei, coarse chromatin, prominent nucleoli, many mitoses.

If an endometrioid adenocarcinoma is a FIGO morphological Grade I or II tumour it should be raised by one grade if it shows nuclear Grade III features.

Serous carcinoma, clear cell carcinoma, squamous carcinoma and undifferentiated carcinoma are not graded, these tumours are basically highly malignant neoplasms. Serous carcinoma, clear cell carcinoma and undifferentiated carcinoma of large cell type usually exhibit Grade 3 nuclear abnormalities.

It is recommended that the guidelines provided by the International Society of Gynecological Pathologists should be used to distinguish squamous from solid adenocarcinomatous elements.[1] In adenocarcinoma with squamous differentiation, the tumour is graded according to the grade of the glandular component.

International Society of Gynecological Pathologists criteria for squamous differentiation

A solid focus of tumour in an endometrioid carcinoma should be considered glandular unless at least one of the following criteria suggesting squamous differentiation is present:[1]

1. Keratinisation demonstrated with standard staining techniques.

2. Intercellular bridges.

3. Three or more of the following criteria:
   - sheet-like growth without gland formation or palisading
   - sharp cell margins
   - eosinophilic and thick or glassy cytoplasm
   - cells with significantly more abundant cytoplasm than nonsquamous tumour cells.

Cervical stromal involvement

Recording invasion of the cervical stroma is important. Superficial spread along the endocervical lumen does not have the same prognostic implications.

Vascular space involvement

A comment should always be made on the presence or absence of vascular space involvement.[5]

Lymph nodes

If lymph nodes are included in the specimen, it is recommended that a full cross-section of each lymph node is embedded. Lymph node metastases can be anticipated in 10–25% of clinical stage I neoplasms. [15]

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