

The Bethesda System for Reporting Cervical Cytology

Definitions, Criteria,
and Explanatory Notes

Third Edition

Ritu Nayar
David C. Wilbur
Editors



Springer

The 2014 BETHESDA SYSTEM FOR REPORTING CERVICAL CYTOLOGY

SPECIMEN TYPE:

Indicate conventional smear (Pap smear) vs. liquid-based preparation vs. other

SPECIMEN ADEQUACY

- Satisfactory for evaluation (*describe presence or absence of endocervical/transformation zone component and any other quality indicators, e.g., partially obscuring blood, inflammation, etc.*)
- 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)

- Negative for Intraepithelial Lesion or Malignancy
- Other: See Interpretation/Result (*e.g., endometrial cells in a woman ≥ 45 years of age*)
- Epithelial Cell Abnormality: See Interpretation/Result (*specify ‘squamous’ or ‘glandular’ as appropriate*)

INTERPRETATION/RESULT

NEGATIVE FOR INTRAEPITHELIAL LESION OR MALIGNANCY

(When there is no cellular evidence of neoplasia, state this in the General Categorization above and/or in the Interpretation/Result section of the report--whether or not there are organisms or other non-neoplastic findings)

NON-NEOPLASTIC FINDINGS (*optional to report optional to report; list not inclusive*)

- Non-neoplastic cellular variations
 - Squamous metaplasia
 - Keratotic changes
 - Tubal metaplasia
 - Atrophy
 - Pregnancy-associated changes

- Reactive cellular changes associated with:
 - Inflammation (includes typical repair)
 - Lymphocytic (follicular) cervicitis
 - Radiation
 - Intrauterine contraceptive device (IUD)
- Glandular cells status post hysterectomy

ORGANISMS

- *Trichomonas vaginalis*
- Fungal organisms morphologically consistent with *Candida* spp.
- Shift in flora suggestive of bacterial vaginosis
- Bacteria morphologically consistent with *Actinomyces* spp.
- Cellular changes consistent with herpes simplex virus
- Cellular changes consistent with cytomegalovirus

OTHER

- Endometrial cells (*in a woman ≥ 45 years of age*)
(Specify if “negative for squamous intraepithelial lesion”)

EPITHELIAL CELL ABNORMALITIES

SQUAMOUS CELL

- Atypical squamous cells
 - of undetermined significance (ASC-US)
 - cannot exclude HSIL (ASC-H)
- Low-grade squamous intraepithelial lesion (LSIL)
(encompassing: HPV/mild dysplasia/CIN 1)
- High-grade squamous intraepithelial lesion (HSIL)
(encompassing: moderate and severe dysplasia, CIS; CIN 2 and CIN 3)
 - with features suspicious for invasion (*if invasion is suspected*)
- Squamous cell carcinoma

GLANDULAR CELL

- Atypical
 - endocervical cells (NOS or specify in comments)
 - endometrial cells (NOS or specify in comments)
 - glandular cells (NOS or specify in comments)
- Atypical
 - endocervical cells, favor neoplastic
 - glandular cells, favor neoplastic

- Endocervical adenocarcinoma in situ
- Adenocarcinoma
 - endocervical
 - endometrial
 - extrauterine
 - not otherwise specified (NOS)

OTHER MALIGNANT NEOPLASMS: *(specify)*

ADJUNCTIVE TESTING

Provide a brief description of the test method(s) and report the result so that it is easily understood by the clinician.

COMPUTER-ASSISTED INTERPRETATION OF CERVICAL CYTOLOGY

If case examined by an automated device, specify device and result.

EDUCATIONAL NOTES AND COMMENTS APPENDED TO CYTOLOGY REPORTS *(optional)*

Suggestions should be concise and consistent with clinical follow-up guidelines published by professional organizations (references to relevant publications may be included).

Acknowledgements

Bethesda System Committee Members and Contributors to Bethesda Atlas, First edition

(Kurman RJ, Solomon D (Eds). The Bethesda System for Reporting Cervical/Vaginal Cytologic Diagnoses. *Definitions, Criteria, and Explanatory Notes for terminology and Specimen Adequacy*. New York: Springer-Verlag, 1994).

Robert J. Kurman, M.D. (*Chairman, Criteria Committee*)

Ronald D. Luff, M.D, M.P.H. (*Chairman, Editorial Committee*)

Barbara F. Atkinson, M.D., Jonathan S. Berek, M.D., Marluce Bibbo, M.D., Sc.D., Thomas A. Bonfiglio, M.D., Christopher P. Crum, M.D., Yener S. Erozan, M.D., Yao Shi Fu, M.D., Shirley E. Greening, M.S, J.D., Michael R. Henry, M.D., Donald E. Henson, M.D., Mujtaba Husain, M.D., Robert V.P. Hutter, M.D., Stanley L. Inhorn, M.D., Howard W. Jones III, M.D., Nancy B. Kiviat, M.D., Tilde S. Kline, M.D., Paul A. Krieger, M.D., George D. Malkasian, Jr. M.D., Alexander Meisels, M.D., Mary L. Nielsen, M.D., Stanley F. Patten, Jr, M.D., Ph.D., Vincent P. Perna, M.D., Dorothy L. Rosenthal, M.D., Patricia E. Saigo, M.D., Alexander Sedlis, M.D., Mark E. Sherman, M.D., Diane Solomon, M.D., Theresa Somrak, CT(ASCP), J.D., Leo B. Twiggs, M.D, George L. Wied, M.D.

The 2001 Bethesda System Forum Groups and Bethesda Atlas, Second edition

(Solomon D, Nayar R. (Eds) *The Bethesda System for Reporting Cervical Cytology. Definitions, Criteria, and Explanatory Notes*. New York: Springer, 2004).

Adequacy:

Authors: George G. Birdsong, Diane D. Davey, Teresa M. Darragh, Paul Elgert, and Michael R. Henry.

Forum Group Moderators: Diane D. Davey, M.D., George G. Birdsong, M.D., Henry W. Buck, M.D., Teresa M. Darragh, M.D., Paul A. Elgert, CT(ASCP), and Michael R. Henry, M.D., Heather Mitchell, M.D., and Suzanne Selvaggi, M.D.

Non-Neoplastic Findings

Authors: Nancy A. Young, Marluce Bibbo, Sally-Beth Buckner, Terrance J. Colgan, and Marianne U. Prey.

Forum Group Moderators: Nancy A. Young, M.D., Marluce Bibbo M.D., Sally-Beth Buckner CT(ASCP), Terrance J. Colgan, M.D., Dorothy Rosenthal, M.D., and Edward Wilkinson, M.D.

Endometrial Cells

Authors: Ann T. Moriarty and Edmund S. Cibas.

Forum Group Moderators: Edmund S. Cibas, M.D., Gary W. Gill, CT(ASCP), Meg McLachlin, M.D., Ann T. Moriarty, M.D., Ellen Sheets, M.D., Teresa M. Somrak, J.D. CT(ASCP), Rosemary E. Zuna, M.D.

Atypical Squamous Cells

Authors: Mark E. Sherman, Fadi W. Abdul-Karim, Jonathan S. Berek, Celeste N. Powers, Mary K. Sidawy, and Sana O. Tabbara.

Forum Group Moderators: Mark E. Sherman, M.D., Fadi W. Abdul-Karim, M.D., Jonathan S. Berek, M.D., Patricia Braly, M.D., Robert Gay, CT(ASCP), Celeste N. Powers, M.D., Ph.D., Mary K. Sidawy, M.D., and Sana O. Tabbara, M.D.

Epithelial Cell Abnormalities: Squamous

Authors: Thomas C. Wright, Rose Marie Gatscha, Ronald D. Luff, and Marianne U. Prey.

Forum Group Moderators: Thomas C. Wright, M.D., Richard M. DeMay, M.D., Rose Marie Gatscha, CT (ASCP), Lydia Howell, M.D., M.P.H., Ronald D. Luff, M.D., M.P.H., Volker Schneider, M.D., and Leo Twiggs, M.D.

Epithelial Cell Abnormalities: Glandular

Authors: Jamie L. Covell, David C. Wilbur, Barbara Guidos, Kenneth R. Lee, David C. Chhieng, and Dina R. Mody.

Forum Group Moderators: David C. Wilbur, M.D., David C. Chhieng, M.D., J. Thomas Cox, M.D., Jamie Covell, B.S., CT(ASCP), Barbara Guidos, SCT (ASCP), Kenneth R. Lee, M.D., and Dina R. Mody, M.D.

Other Malignant Neoplasms

Authors: Sana O. Tabbara and Jamie L. Covell.

Anal-Rectal Cytology

Authors: Teresa M. Darragh, George G. Birdsong, Ronald D. Luff, and Diane D. Davey.

Forum Group Moderators: Diane D. Davey, M.D., George G. Birdsong, M.D., Henry Buck, M.D., Teresa M. Darragh, M.D., Paul A. Elgert, CT(ASCP), Michael R. Henry, M.D., Heather Mitchell, M.D., and Suzanne Selvaggi, M.D.

Ancillary Testing

Authors: Stephen S. Raab and Mark E. Sherman.

Forum Group Moderators: Stephen S. Raab, M.D., Karen A. Allen, SCT(ASCP), Christine Bergeron, M.D., PhD., Diane Harper, M.D., Walter Kinney, M.D., Alexander Meisels, M.D., and Mark E. Sherman, M.D.

Computer -Assisted Interpretation of Cervical Cytology

Authors: Marianne U. Prey.

Forum Group Moderators: Marianne U. Prey, M.D., Michael Facik, CT(ASCP), Albrecht Reith, M.D., Max Robinowitz, M.D., Mary Rubin, NP, PhD, and Sue Zaleski, SCT (ASCP).

Educational Notes and Suggestions Appended to Cytology Reports

Authors: Dennis M. O'Connor.

Forum Group Moderators: Dennis M. O'Connor, M.D., Marshall Austin, M.D., Ph.D., Lisa Flowers, M.D., Blair Holladay, Ph.D., CT(ASCP), Dennis McCoy, J.D., Paul Kreiger, M.D., Gabriele Medley, M.D., Jack Nash, M.D., and Mark Sidoti, J.D.

The 2014 Bethesda System and Bethesda Atlas, Third edition

(Nayar R, Wilbur DC (Eds). *The Bethesda System for Reporting Cervical Cytology. Definitions, Criteria, and Explanatory Notes*. Springer, 2015)

The 2014 Bethesda System Task Force

Chairs: Ritu Nayar, M.D. and David C. Wilbur, M.D.

Advisor: Diane Solomon, M.D.

Members: Fadi W. Abdul-Karim, M.D., George G. Birdsong, M.D., David Chelmow, M.D., David C. Chhieng, M.D., Edmund S. Cibas, M.D., Teresa M. Darragh, M.D., Diane D. Davey, M.D., Michael R. Henry, M.D., Walid E. Khalbuss, M.D., Ph.D., Daniel F.I. Kurtycz, M.D., Dina R. Mody, M.D., Ann T. Moriarty, M.D., Joel M. Palefsky, M.D., Celeste N. Powers, M.D., Ph.D., Donna K. Russell, M.Ed., CT(ASCP), HT(ASCP), Mark Schiffman, M.D., M.P.H., Mary K. Sidawy, M.D., Paul N. Staats, M.D., Mark H. Stoler, M.D., Sana O. Tabbara, M.D., Alan G. Waxman, M.D., Nicolas Wentzensen, M.D., Ph.D.

