

The benchmarking data listed in the table below are based on 2021 case volumes. These benchmarking data may not be applicable for laboratories that utilize primary HPV screening for a significant portion of cervical cancer screening. Results were excluded for laboratories that included primary HPV screening results in the interpretive totals when more than 25% of their cervical/gynecologic cytology slides were from positive primary HPV screening. In evaluating its statistics, the laboratory's patient population should be taken into consideration. Percentile-reporting rates refer to the distribution of individual laboratory responses from reporting rates in various categories. Responses are ranked from lowest to highest, and the 50th percentile-reporting rate refers to the median response. A 25th percentile-reporting rate (which corresponds to 1.7% in the table) for the ThinPrep LSIL category means that a quarter of laboratories have LSIL rates of 1.7% or less. A 90th percentile-reporting rate (which corresponds to 11.7% in the table) for ASC-US in ThinPrep preparations means that 9 of 10 laboratories have an ASC-US rate of 11.7% or less.

The reporting rates for ASC-US, ASC-H, AGC, LSIL, HSIL, and UNSATISFACTORY are given as percentages of total case volume. An ASC-US rate of 2.0% means 2/100 cases in the lab are designated ASC-US. The ASC/SIL figure is a calculated ratio: the percentage or number of a laboratory's ASC-US and ASC-H cases divided by the percentage or number of LSIL, HSIL, and malignant cases. A laboratory with 4% ASC cases and 3% SIL cases has an ASC/SIL ratio of 1.3, as compared to the median ASC/SIL ratio of 1.5 for conventional Paps, 2.0 for ThinPrep® and 1.8 for SurePath.

| CONVENTIONAL * Laboratory Percentile-Reporting Rate | | | | | | | |
|--|-----|------|------|--------|------|------|------|
| CATEGORY | 5th | 10th | 25th | Median | 75th | 90th | 95th |
| Unsatisfactory (%) | 0.0 | 0.0 | 0.4 | 1.3 | 2.2 | 5.2 | 7.1 |
| LSIL (%) | 0.0 | 0.0 | 0.3 | 0.8 | 1.6 | 2.0 | 2.8 |
| HSIL (%) | 0.0 | 0.0 | 0.1 | 0.3 | 0.5 | 0.9 | 1.1 |
| ASC-US (%) | 0.1 | 0.3 | 1.0 | 1.8 | 3.6 | 5.3 | 6.7 |
| ASC-H (%) | 0.0 | 0.0 | 0.1 | 0.1 | 0.4 | 0.8 | 1.1 |
| AGC (%) | 0.0 | 0.0 | 0.0 | 0.1 | 0.2 | 0.6 | 1.2 |
| ASC/SIL | 0.4 | 0.5 | 1.0 | 1.5 | 2.7 | 4.2 | 5.6 |

| ThinPrep** Laboratory Percentile-Reporting Rate | | | | | | | |
|--|-----|------|------|--------|------|------|------|
| CATEGORY | 5th | 10th | 25th | Median | 75th | 90th | 95th |
| Unsatisfactory (%) | 0.2 | 0.4 | 0.9 | 1.7 | 2.9 | 4.8 | 5.7 |
| LSIL (%) | 0.4 | 0.9 | 1.7 | 2.4 | 3.3 | 4.8 | 6.6 |
| HSIL (%) | 0.1 | 0.1 | 0.2 | 0.4 | 0.6 | 1.0 | 1.3 |
| ASC-US (%) | 1.0 | 1.9 | 3.6 | 5.4 | 7.9 | 11.7 | 15.2 |
| ASC-H (%) | 0.0 | 0.1 | 0.2 | 0.4 | 0.6 | 1.1 | 1.5 |
| AGC (%) | 0.0 | 0.0 | 0.1 | 0.2 | 0.4 | 0.7 | 1.1 |
| ASC/SIL | 0.7 | 1.1 | 1.6 | 2.0 | 2.7 | 3.6 | 4.4 |

SurePath**
Laboratory Percentile-Reporting Rate

| CATEGORY | 5th | 10th | 25th | Median | 75th | 90th | 95th |
|--------------------|-----|------|------|--------|------|------|------|
| Unsatisfactory (%) | 0.0 | 0.0 | 0.2 | 0.4 | 0.8 | 1.2 | 1.6 |
| LSIL (%) | 0.2 | 0.5 | 1.0 | 2.2 | 3.0 | 4.3 | 5.9 |
| HSIL (%) | 0.0 | 0.0 | 0.2 | 0.3 | 0.5 | 1.0 | 1.4 |
| ASC-US (%) | 0.3 | 0.7 | 2.1 | 4.2 | 6.6 | 9.2 | 10.6 |
| ASC-H (%) | 0.0 | 0.1 | 0.1 | 0.3 | 0.5 | 0.8 | 1.3 |
| AGC (%) | 0.0 | 0.0 | 0.1 | 0.2 | 0.5 | 0.7 | 1.6 |
| ASC/SIL | 0.5 | 0.9 | 1.2 | 1.8 | 2.9 | 3.6 | 4.2 |

*Includes conventional annual test volume of >60.

**Includes SurePath and ThinPrep annual test volume of >300.

Evidence of Compliance:

- ✓ Records of statistical data for defined categories **AND**
- ✓ Records of data review and evaluation against benchmark data by the laboratory director or designee

REFERENCES

- 1) Department of Health and Human Services, Centers for Medicare and Medicaid Services. Clinical laboratory improvement amendments of 1988; final rule. *Fed Register*. 2023(Dec 28): [42CFR493.1274(c)(5)(i) through (c)(5)(vi)].
- 2) Davey DD, Souers RJ, Goodrich K, Mody DR, Tabbara SO, Booth CN. Bethesda 2014 implementation and human papillomavirus primary screening: practices of laboratories participating in the College of American Pathologists PAP Education Program. *Arch Pathol Lab Med*. 2019;143:1196-1202
- 3) Genest DR, et al. Qualifying the cytologic diagnosis of "atypical squamous cells of undetermined significance" affects the predictive value of a squamous intraepithelial lesion on subsequent biopsy. *Arch Pathol Lab Med*. 1998;122:338-341
- 4) Raab SS, et al. Interobserver variability of a Papanicolaou smear diagnosis of atypical glandular cells of undetermined significance. *Am J Clin Pathol*. 1998;110:653-659
- 5) Schiffman M, et al. HPV DNA testing in cervical cancer screening results for women in a high risk province in Costa Rica. *JAMA*. 2000;283:87-93
- 6) Solomon D, et al. Comparison of three management strategies for patients with ASCUS. *J Natl Cancer Inst*. 2000;93:293-299
- 7) Juskevicius R, et al. An analysis of factors that influence the ASCUS/SIL ratio of pathologists. *Am J Clin Pathol*. 2001;116:331-335

****NEW** 12/26/2024**

CYP.07620 Statistical Records - Reflexed Gynecological Cytopathology

Phase I



For gynecologic cytopathology cases reflexed from primary HPV screening, statistical records are maintained and evaluated at least annually, and include the following:

- Number of primary HPV screening tests performed, if available
- Number of Paps reflexed from primary HPV screening
- Number of reflexed Paps reported by diagnosis for each specimen type (including the number reported as unsatisfactory for diagnostic interpretation)
- Number of cases with a diagnosis of HSIL, adenocarcinoma, or other malignant neoplasm for which histology results were available for comparison
- Number of cases where cytology and histology are discrepant
- Number of cases where any rescreen of a normal or negative specimen results in reclassification as low-grade squamous intraepithelial (LSIL), HSIL, adenocarcinoma, or other malignant neoplasms
- Number of positive and negative p16/Ki67 dual stains performed.

NOTE: The data must be evaluated by the laboratory director or designee and included in the annual cytopathology statistical report.

If a p16/Ki67 dual stain is used as a follow-up to an HPV positive test with a negative Pap test, statistics should be maintained separate from p16/Ki67 dual stain results derived from a positive HPV screening test.

Evidence of Compliance:

- ✓ Records of statistical data for defined categories **AND**