

External Quality Assessment Scheme

Sputum cells Round 1, 2022

Specimens

The samples S001-S004 in this scheme are four digital images. No physical samples are sent to the clients

Parameters

The samples are May-Grunwald-Giemsa-stained Sputum cell specimens and the images were taken with a digital microscope using a 100x objective. Participants are asked to identify the main finding or the findings marked with arrows.

Examinations

Sputum cells

Result reporting

Please enter the results via LabScala (www.labscala.com).

CASES

Case 1 (LQ751122011)

Clinical information: a 66-year-old woman complains of pain in her mouth when swallowing food. Clinical diagnosis: Acute myeloblastic leukemia in remission.

Case 2 (LQ751122012)

Clinical information: a 35-year-old man complains of brown-green nasal discharge, coughing, sputum. He has bronchial asthma for 3 years. Clinical diagnosis: eosinophilic granulomatosis with polyangiitis, Churg-Strauss syndrome.

Case 3 (LQ751122013)

Clinical information: a 40-year-old man complains of a dry cough after swimming in a lake or pool, watery eyes and nasal discharge. Clinical diagnosis: bronchial asthma, unspecified.

Case 4 (LQ751122014)

Clinical information: a 39-year-old man complains of a dry cough, scanty expectoration, shortness of breath, dyspnea, wheezing at night. Clinical diagnosis: acute bronchitis, unspecified; bronchial asthma, unspecified.

2022-11-29

INSTRUCTIONS

Product no. 2652

LQ751122011-14/LT

The results should be reported no later than
December 22, 2022

Inquiries

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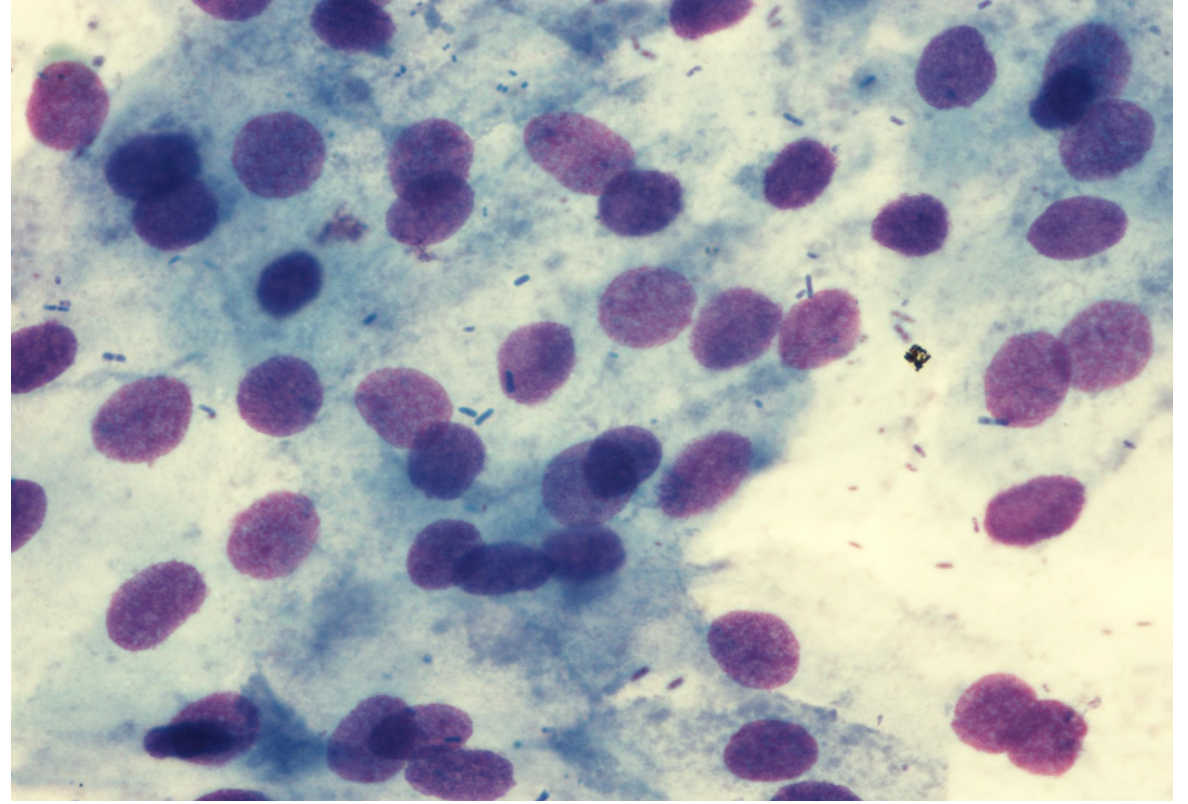
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Sample S001

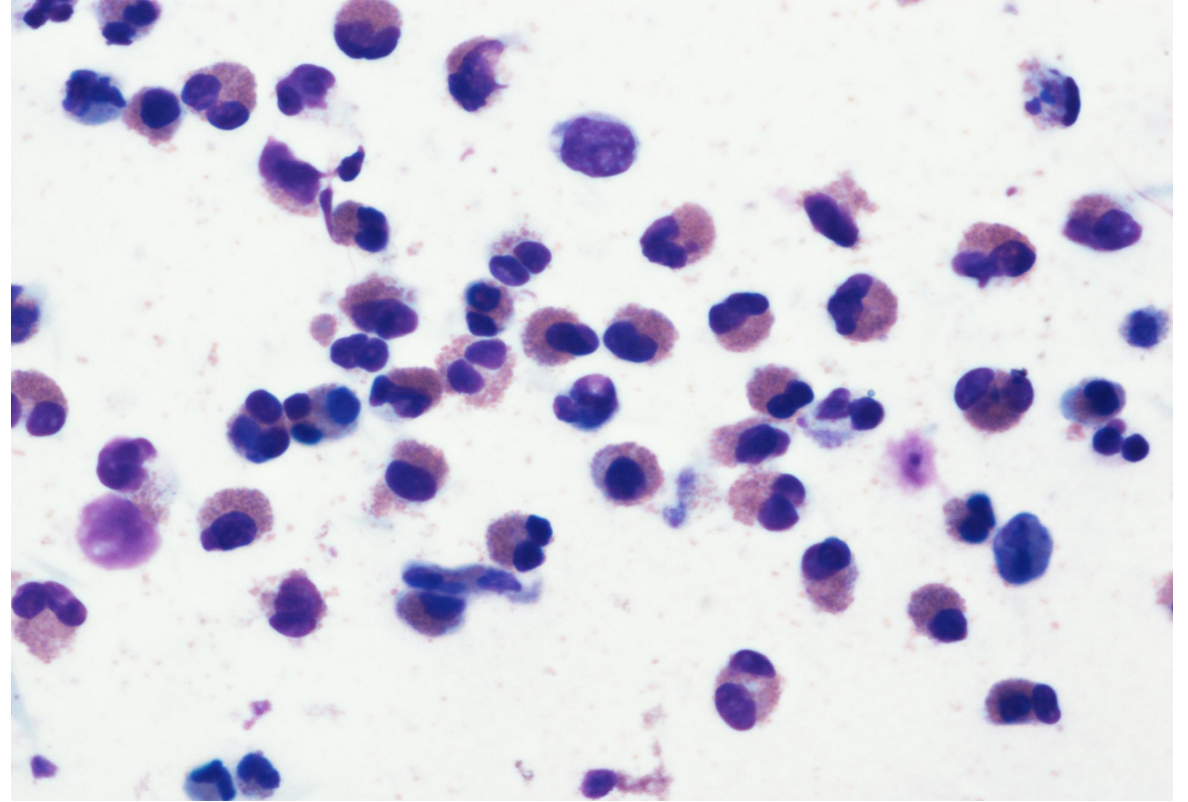
Result - Sputum cell finding	n
Artefact	1
Lymphocyte	1
Macrophage	1
Squamous epithelial cell (SEC)	25
Unciliated epithelial cell	3
Unrepresentative sample	1
Total	32



Clinical information was a 66-year-old woman complains of pain in her mouth when swallowing food. Clinical diagnosis: Acute myeloblastic leukemia in remission. The smear is dominated by squamous epithelium cells and is not informative. The correct answer is squamous epithelial cells. "Not representative sample" is accepted as a correct answer as well.

Sample S002

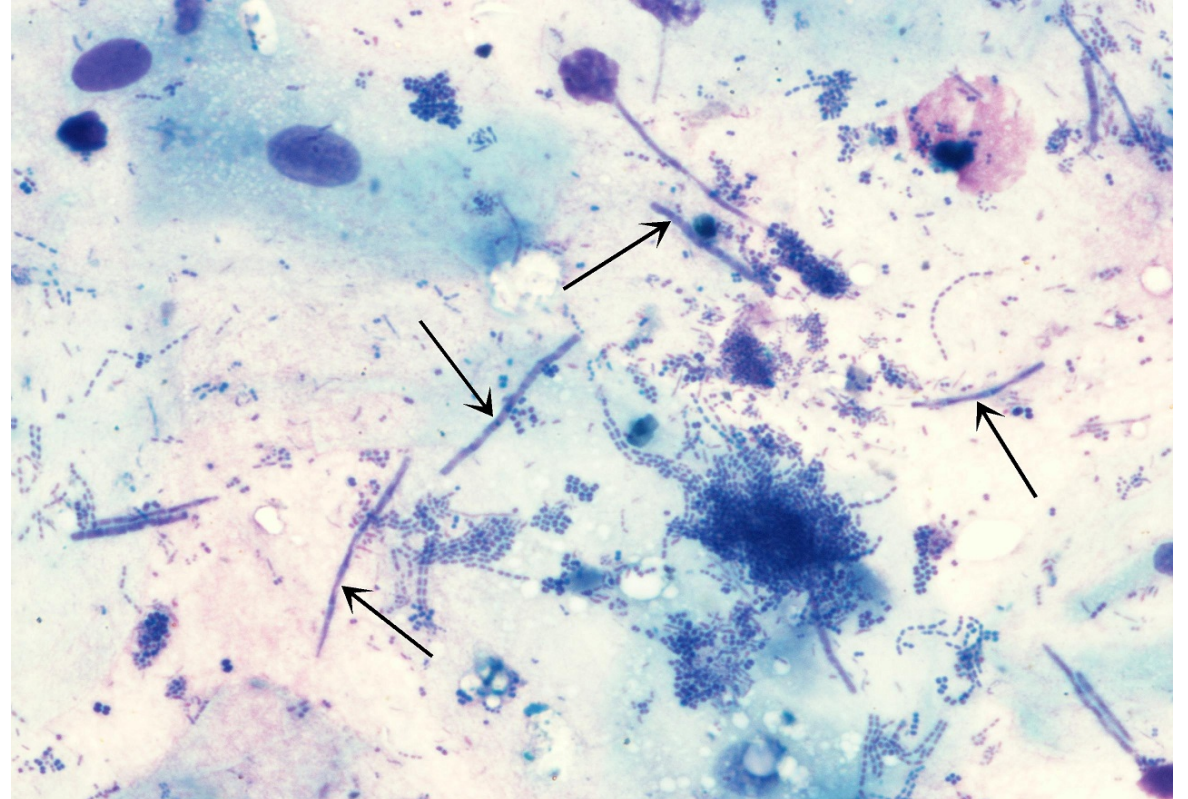
Result - Sputum cell finding	n
Eosinophil	32
Total	32



Clinical information was a 35-year-old man complains of brown-green nasal discharge, coughing, sputum. He has bronchial asthma for 3 years. Clinical diagnosis: eosinophilic granulomatosis with polyangiitis, Churg-Strauss syndrome. Eosinophils predominate in the smear. The correct answer is eosinophils.

Sample S003

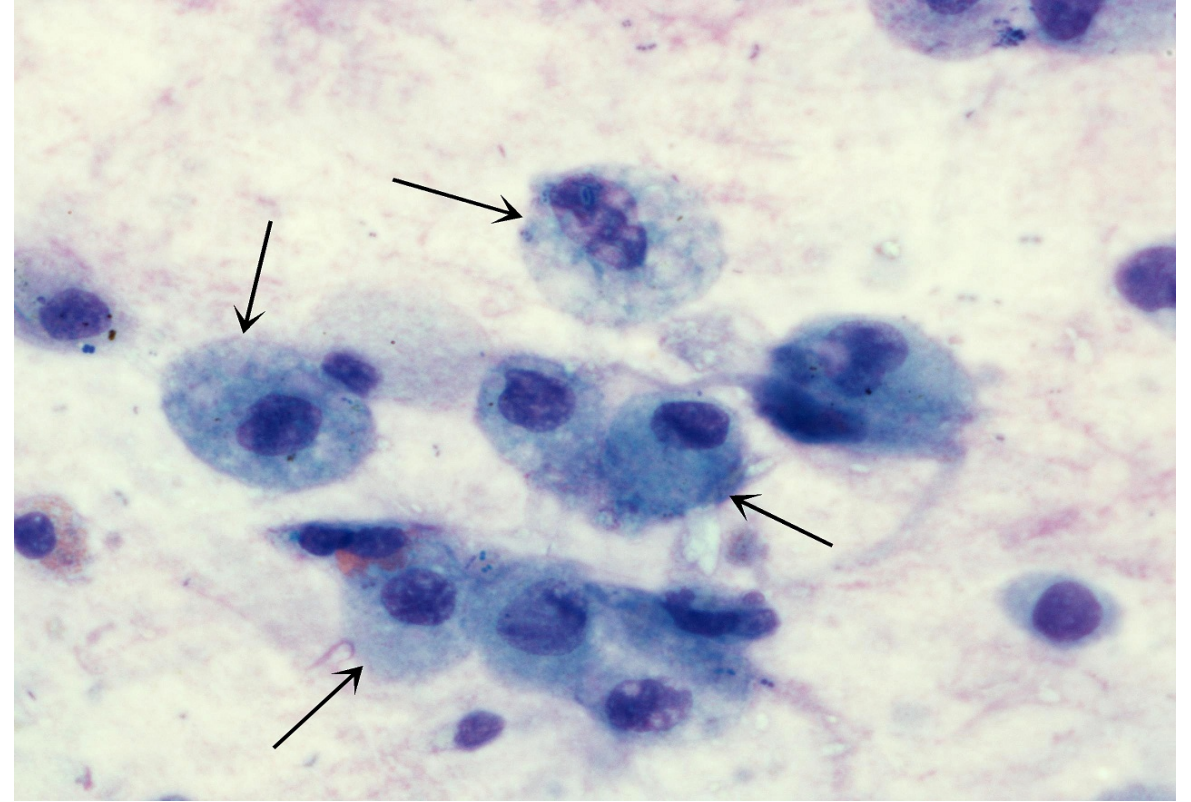
Result - Sputum cell finding	n
Bacteria	5
Fungi	26
Unrepresentative sample	1
Total	32



Clinical information was a 40-year-old man complains of a dry cough after swimming in a lake or pool, watery eyes and nasal discharge. Clinical diagnosis: bronchial asthma, unspecified. The smear is dominated by mixed flora - cocci, rods. These bacteria mimic the shape of fungi because they are long but do not form a mycelium. There are also no spores. The correct answer is bacteria.

Sample S004

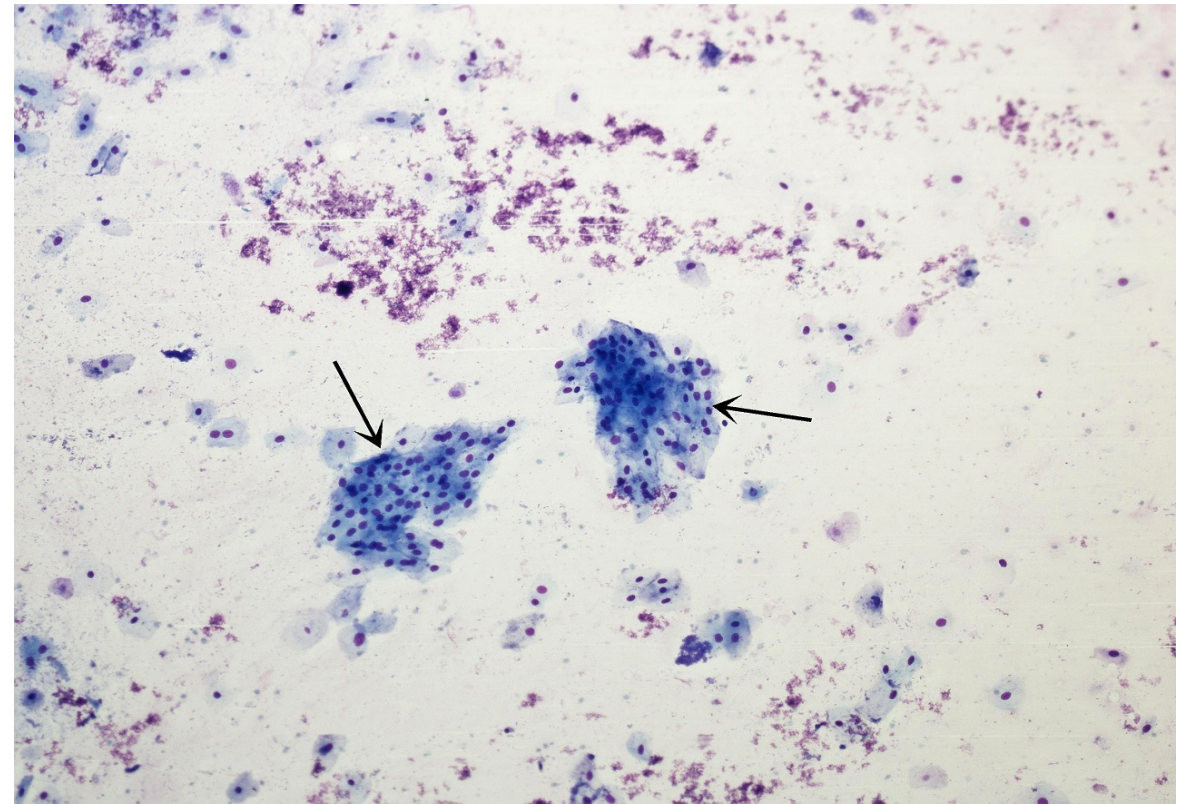
Result - Sputum cell finding	n
Macrophage	28
Squamous epithelial cell (SEC)	1
Unciliated epithelial cell	3
Total	32



Clinical information was a 39-year-old man complains of a dry cough, scanty expectoration, shortness of breath, dyspnea, wheezing at night. Clinical diagnosis: acute bronchitis, unspecified; bronchial asthma, unspecified. Alveolar macrophages predominate in the smear. The correct answer is macrophages.

Sample S001

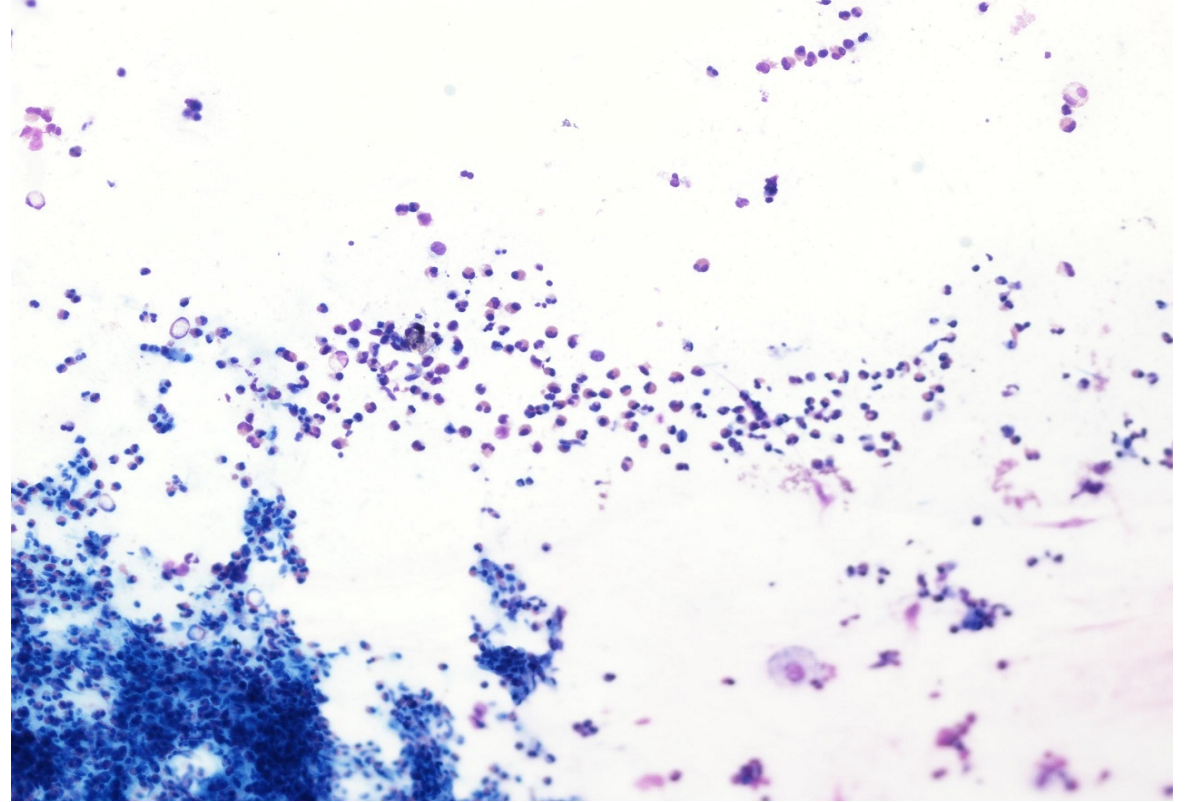
Result - Sputum cell finding	n
Artefact	1
Lymphocyte	1
Macrophage	1
Squamous epithelial cell (SEC)	25
Unciliated epithelial cell	3
Unrepresentative sample	1
Total	32



Clinical information was a 66-year-old woman complains of pain in her mouth when swallowing food. Clinical diagnosis: Acute myeloblastic leukemia in remission. The smear is dominated by squamous epithelium cells and is not informative. The correct answer is squamous epithelial cells. "Not representative sample" is accepted as a correct answer as well.

Sample S002

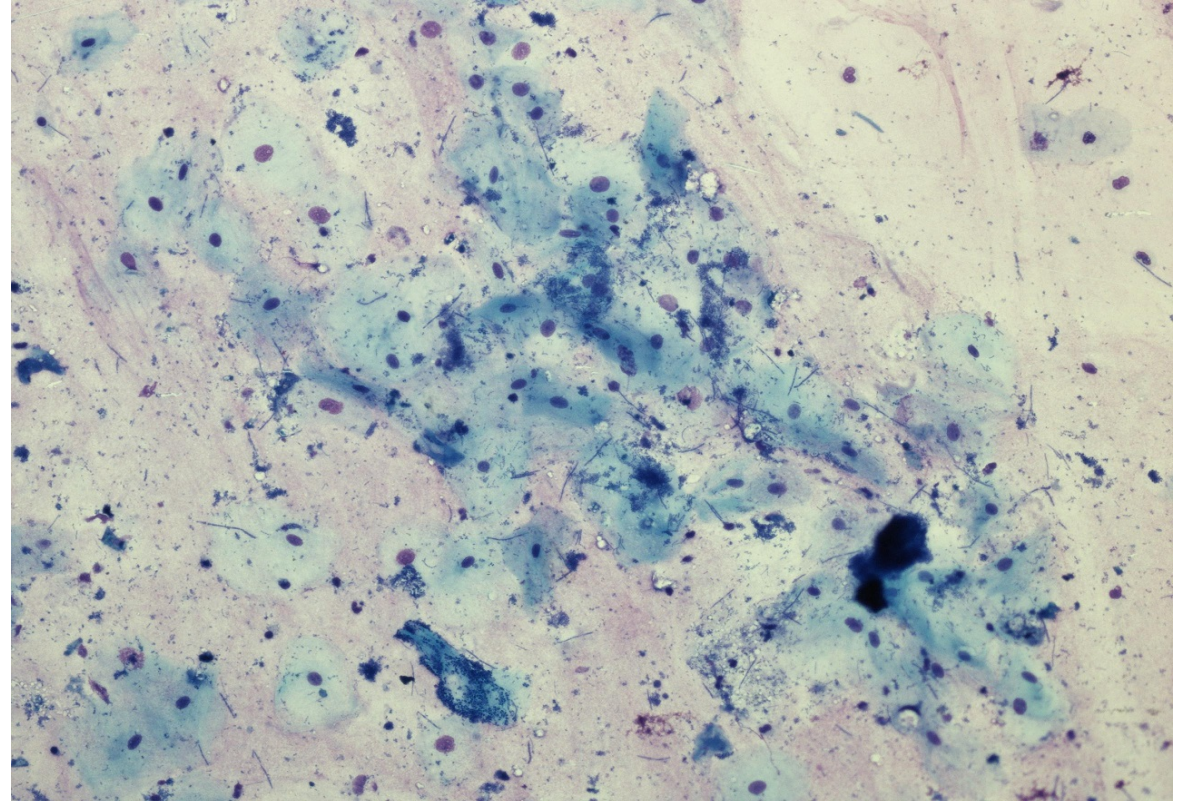
Result - Sputum cell finding	n
Eosinophil	32
Total	32



Clinical information was a 35-year-old man complains of brown-green nasal discharge, coughing, sputum. He has bronchial asthma for 3 years. Clinical diagnosis: eosinophilic granulomatosis with polyangiitis, Churg-Strauss syndrome. Eosinophils predominate in the smear. The correct answer is eosinophils.

Sample S003

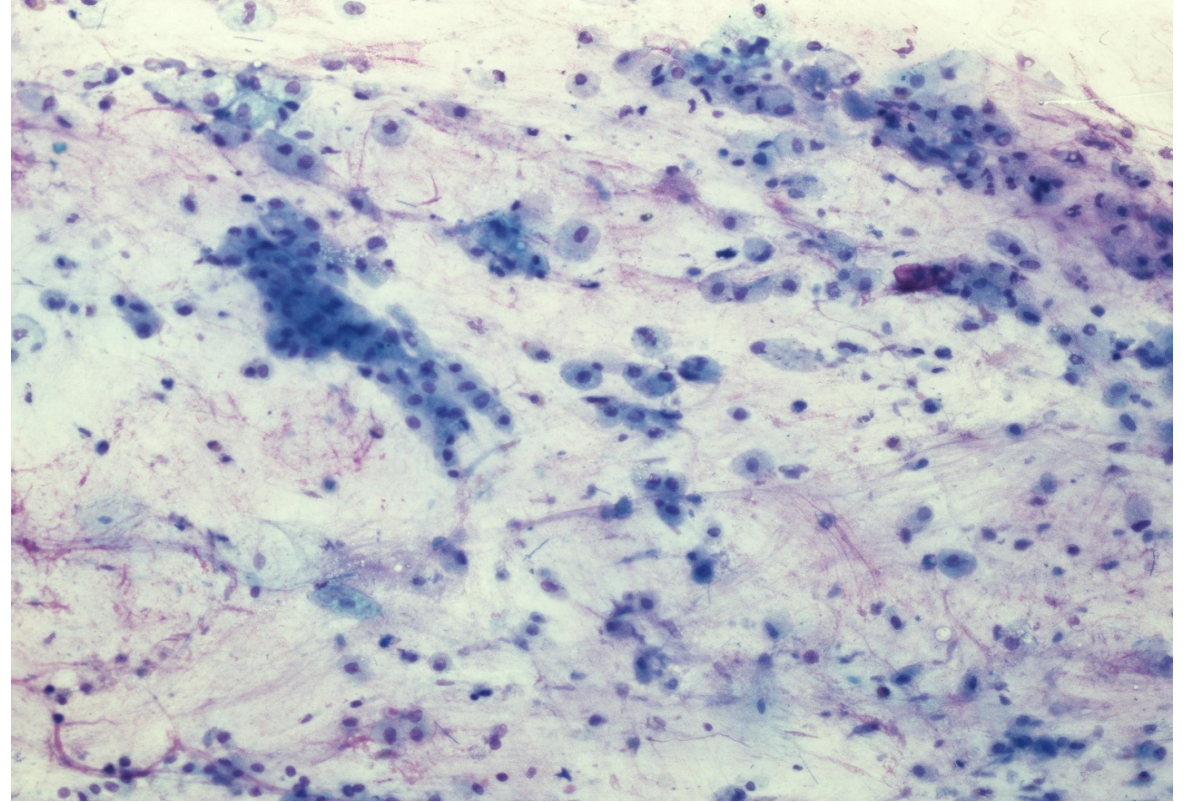
Result - Sputum cell finding	n
Bacteria	5
Fungi	26
Unrepresentative sample	1
Total	32



Clinical information was a 40-year-old man complains of a dry cough after swimming in a lake or pool, watery eyes and nasal discharge. Clinical diagnosis: bronchial asthma, unspecified. The smear is dominated by mixed flora - cocci, rods. These bacteria mimic the shape of fungi because they are long but do not form a mycelium. There are also no spores. The correct answer is bacteria.

Sample S004

Result - Sputum cell finding	n
Macrophage	28
Squamous epithelial cell (SEC)	1
Unciliated epithelial cell	3
Total	32



Clinical information was a 39-year-old man complains of a dry cough, scanty expectoration, shortness of breath, dyspnea, wheezing at night. Clinical diagnosis: acute bronchitis, unspecified; bronchial asthma, unspecified. Alveolar macrophages predominate in the smear. The correct answer is macrophages.

External Quality Assessment Scheme

Sputum cells Round 1, 2022

Specimens

Specimens S001-S004 (LQ751122011 - LQ751122014) were digital images in LabScala.

Report info

The report contains numerical summary with individual results presented in a table. Expected and accepted results are marked with green colour and laboratory's own result with a black radio button (Ⓞ). If you have not reported any results, you will get a note: "You have not responded in time, only global report is available."

It is important to read the Final report first, because it contains important information of the samples and results in each round.

Comments – Expert

Sample S001

Clinical information was a 66-year-old woman complains of pain in her mouth when swallowing food. Clinical diagnosis: Acute myeloblastic leukemia in remission. The smear is dominated by squamous epithelium cells and is not informative. The correct answer is squamous epithelial cells. "Not representative sample" is accepted as a correct answer as well.

Sample S002

Clinical information was a 35-year-old man complains of brown-green nasal discharge, coughing, sputum. He has bronchial asthma for 3 years. Clinical diagnosis: eosinophilic granulomatosis with polyangiitis, Churg-Strauss syndrome. Eosinophils predominate in the smear. The correct answer is eosinophils.

Sample S003

Clinical information was a 40-year-old man complains of a dry cough after swimming in a lake or pool, watery eyes and nasal discharge. Clinical diagnosis: bronchial asthma, unspecified. The smear is dominated by mixed flora - cocci, rods. These bacteria mimic the shape of fungi because they are long but do not form a mycelium. There are also no spores. The correct answer is bacteria.

Sample S004

Clinical information was a 39-year-old man complains of a dry cough, scanty expectoration, shortness of breath, dyspnea, wheezing at night. Clinical diagnosis: acute bronchitis, unspecified; bronchial asthma, unspecified. Alveolar macrophages predominate in the smear. The correct answer is macrophages.

End of report

2022-12-23

FINAL REPORT

Product no. 2652

Subcontracting: Sample preparation

Samples sent	2022-11-29
Round closed	2022-12-22
Final report	2022-12-23

Request for correction

Typing errors in laboratory's result forms are on laboratory's responsibility. Labquality accepts responsibility only for result processing. Requests must be notified by writing within three weeks from the date of this letter.

Authorized by

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Expert

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