

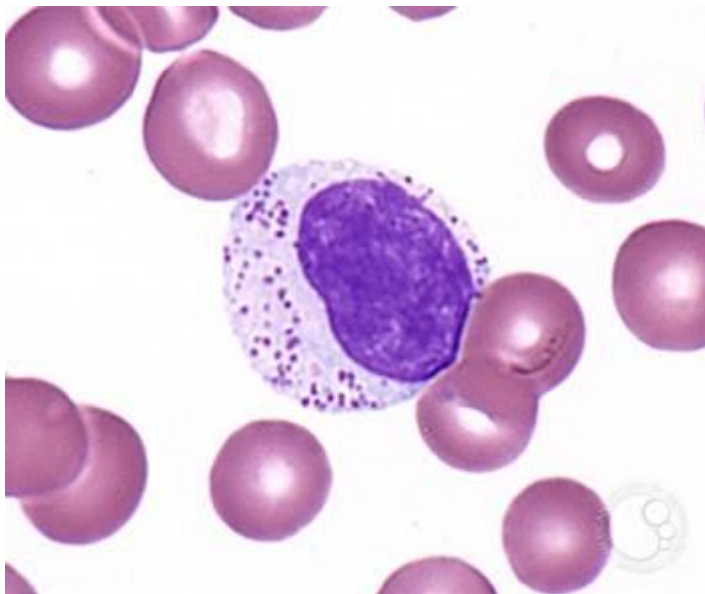
## Large Granular Lymphocytes (For MTS)-

Hi All

The following information was feedback from the RCPA in relation to the first QAP Differential submitted in 2020. There was much discussion/ feedback about the reporting and consensus.

The blood film was taken from a patient diagnosed with T-cell Large granular lymphocytic (LGL) leukaemia.

LGL are larger cells with abundant cytoplasm and prominent granules; they can be seen in healthy individuals as high as 10-15% of lymphocytes but they are usually less frequent.



We had 14 (in house) responses from 50 possible

3 respondents counted reactive lymphocytes

1 respondent counted abnormal lymphocytes

5 respondents described or commented on the LGL in their comments.

5 respondents counted lymphocytes with no mention of reactive, abnormal or LGLs in their comments

## Summary of the RCPA Response

For participants who indicated the presence of [atypical](#) lymphocytes, please refer to the ISCH recommendations attached – atypical lymphocytes are no longer a preferred terminology to describe the qualitative changes in the lymphocytes.

**The blood film indicates presence of lymphocytosis with a predominant population of abnormal lymphocytes described as "large granular lymphocytes (LGL)".**

The distinction between abnormal and reactive lymphocytes relates to their origin. **Reactive lymphocytes** indicate a **benign origin** compared to the **malignant or clonal** etiology of **abnormal lymphocytes**.

A T-LGL count of  $>2.0 \times 10^9/L$  is frequently associated with a large clonal proliferation. The increased percentage of LGL suggested that these cells were of neoplastic rather than a reactive process.

Therefore, when performing a manual differential count LGL should be counted as **abnormal** cells (see ISCH recommendations attached.)

## Some of the Clarification from the RCPA included

1. The RCPAQAP Master Code Booklet, on page 7, clearly states that Lymphocytes - together with Small lymphocytes, large lymphocytes and large granular lymphocytes can be used for all types of normal mature lymphocytes and within a setting of a non reactive normal lymphocytic population
2. ICSH guidelines also state that large granular lymphocytes can be counted as part of the normal lymphocyte population, where LGL's can comprise up to 10–20% of the lymphocytic population
3. Lymphocyte – Abnormal is to be used with an accompanying description for lymphocytes with a suspected malignant or clonal aetiology. Participants are required to indicate a particular neoplastic cell type if possible e.g. prolymphocyte, hairy cell, plasma cell. This instruction is as noted from ICSH guidelines
4. Participants are reminded that in the Blood film survey participants are not required to enumerate for morphological diagnosis but rather to recognize any potential abnormal, malignant or clonal cell populations and to note the percentage of the cells present
5. In the January Blood Film Survey, the acceptable range for abnormal lymphocytes – LGL's was from 24 to 54, this range suggests that there is a suspected malignant or clonal aetiology.

## ALFRED LABORATORY CONVENTION

When lymphocytes are seen on a film (first presentation) and there is suspicion of a malignant or clonal aetiology (in this case > 20% LGLs) we will provide a manual differential categorizing them as abnormal lymphocytes with a description in the morphology comment and indicating the particular neoplastic type if possible.

Other examples of a suspected malignant clone would include lymphoma cells, prolymphocytes etc.