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## Problem

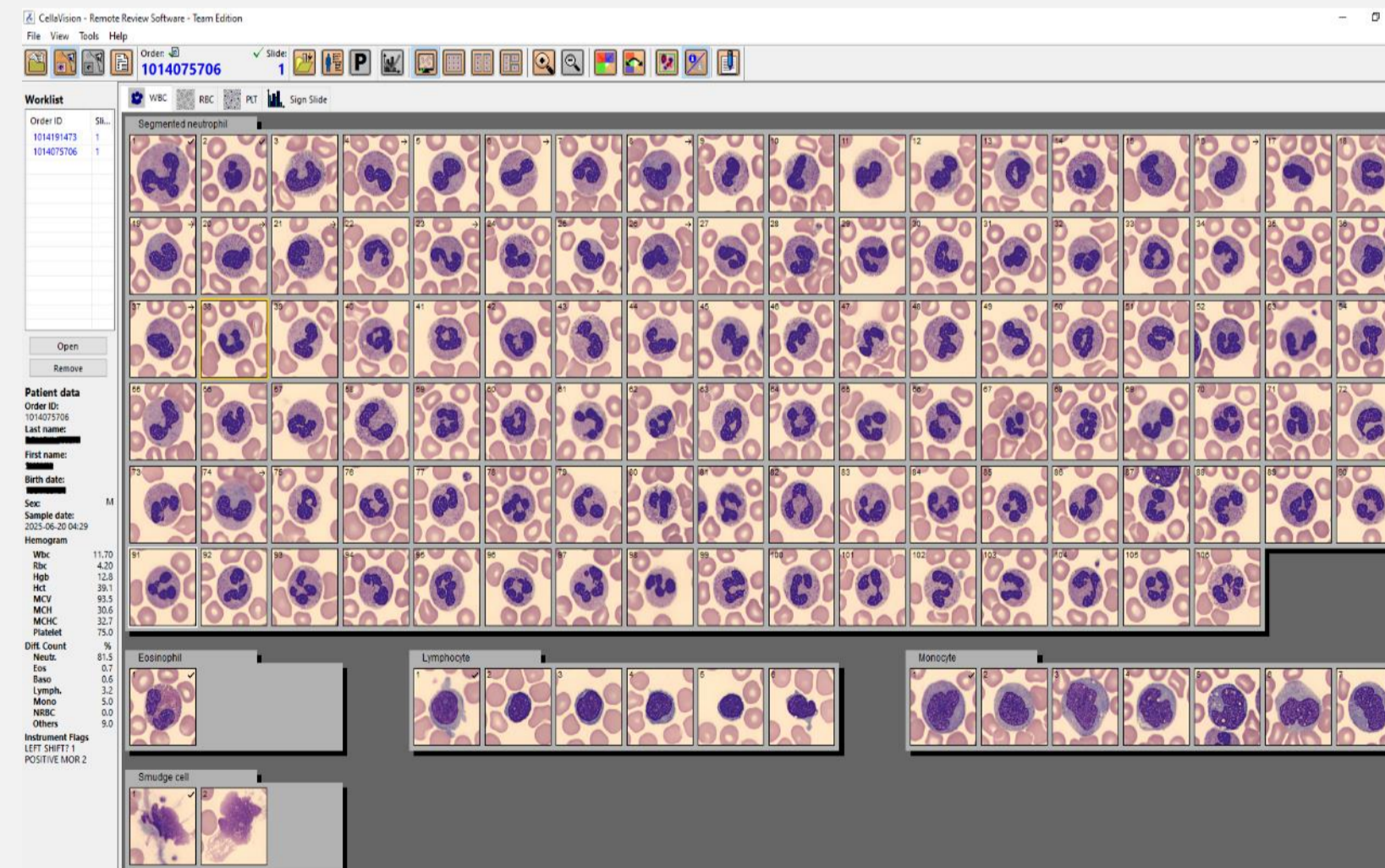
- The morphologic examination of a blood smear is an important part of a hematologic evaluation which assists in identifying abnormal cells and abnormal morphology of RBC and platelets.
- The manual blood smear differential process is:
  - Time-consuming ~ 5 - 20 minutes per smear
  - Labor-intensive ~ 450 slides/day
- With increasing volume, there was a clear need for automation for differentials in the Hematology laboratory to improve accuracy, turnaround time, and workflow efficiency.

## Goal

- Incorporate use of CellaVision technology for digital cell imaging when performing automated and manual differentials. Enhance workflow post procedure review, re-educate staff on revision.
- Meet or exceed quality goal of performing >65% of all differentials using CellaVision software.
- Improving routine differential TAT by resulting greater than 90% of orders within 4 hours of specimen receipt time.

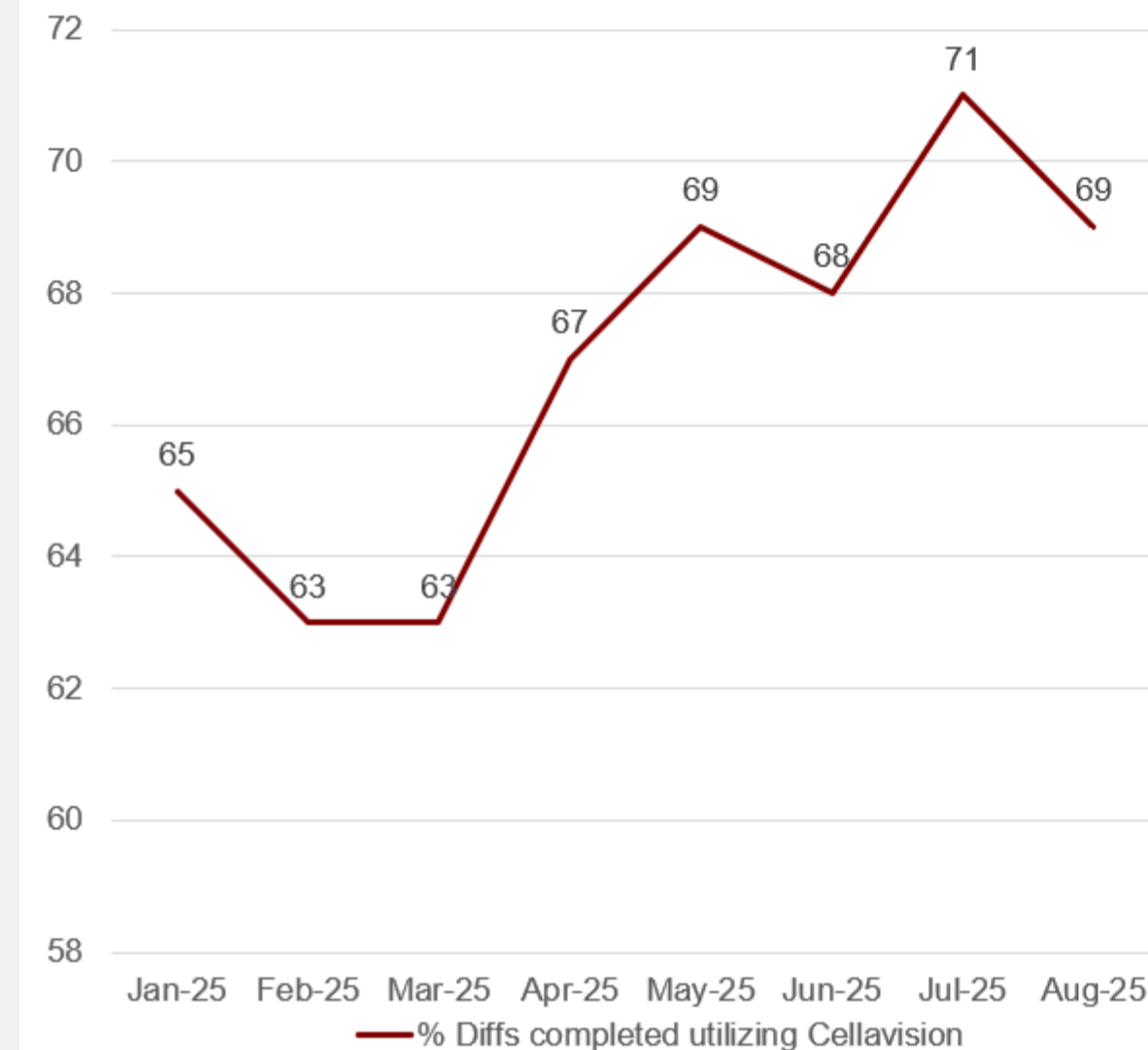
## Innovation

- CellaVision DI-60 enables digital pre-classification of WBC, RBC, and platelets using AI and image analysis
- Streamlines slide preparation, staining, and imaging into a single workcell
- Standardized training & workflow reviews conducted in March 2025
- Revised thresholds for differential requiring manual microscopic review to better align with clinical decision points for the following parameters:

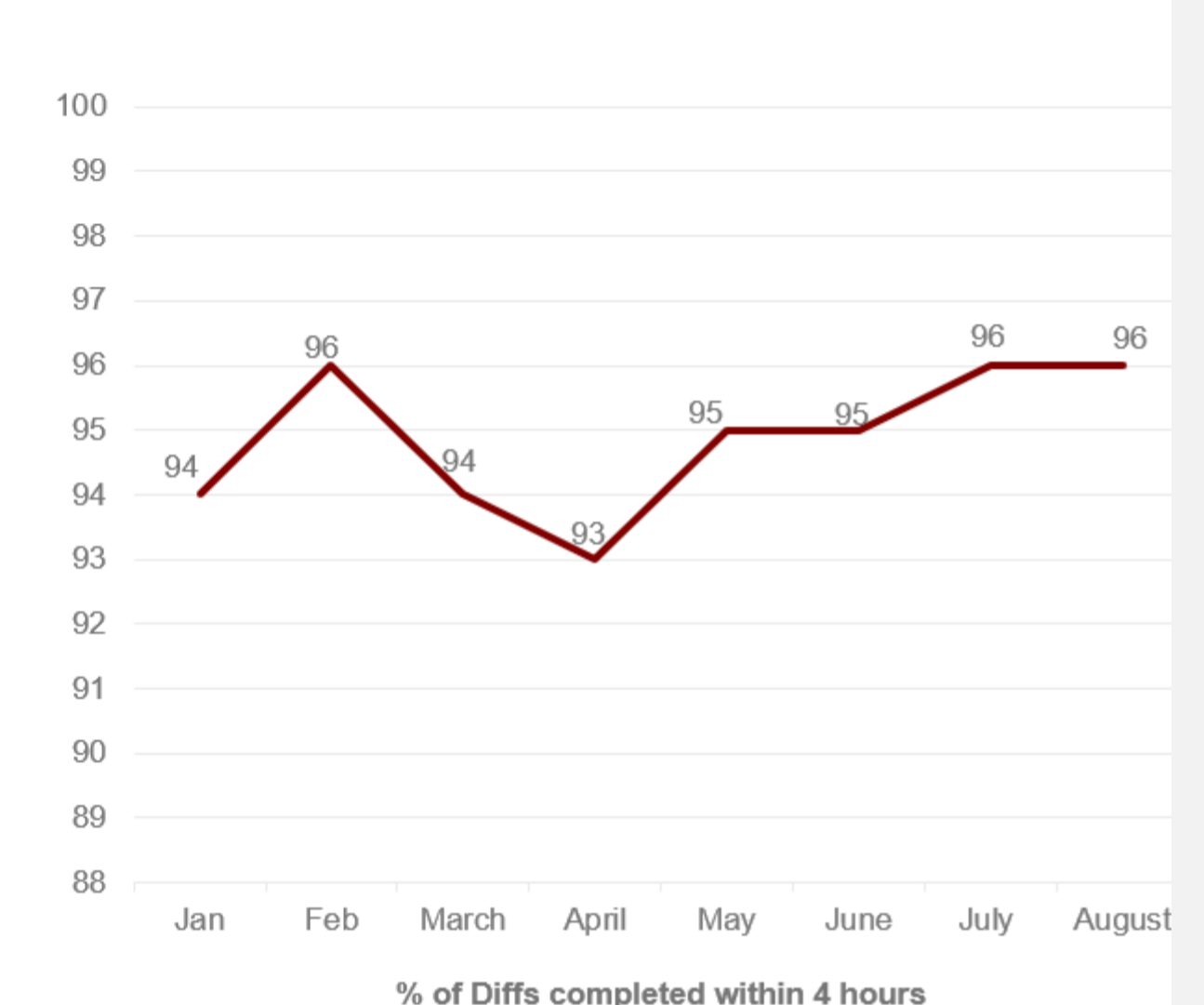


## Results to Date

Current Goal - >65% Differentials using CellaVision



Current Goal - Result >90% within 4 hours



- Quality metric integration in 2023 into the Laboratory Quality Dashboard for Hematology.
- Improved workflow consistency
- Reduced differential turnaround time
- Enhanced training and confidence for new technologists
- Workflow bottlenecks identified and addressed via staff feedback

## Conclusion and Next Steps

- CellaVision use is now a reliable part of the workflow with > 65% of all differentials performed using the tool.
- Continual workflow refinement to improve efficiency and reporting accuracy
- Monitor KPI goals via the Lab Quality Dashboard
- Continue engaging staff for feedback-driven improvements

## Acknowledgements

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