

# An Audit of Lipid Monitoring in Patients Prescribed Janus Kinase Inhibitors at St Vincent's Hospital

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## Introduction

Janus Kinase (JAK) inhibitors have proven efficacious for several rheumatological conditions, and are now commonly prescribed (Nash et al. 2020) Many cytokines, including interleukin 6, use JAK pathways to signal, and therefore inhibition of this pathway has pleiotropic effects. One well described effect is a rise in circulating lipids, which can be observed in 5-9% of patients prescribed. (Nash et al. 2020) There is therefore a clinical consensus that patients being initiated on a JAK inhibitor should have circulating lipid levels measured before treatment begins if they have not had lipid levels checked in the year prior to treatment (Nash et al. 2020) These should be re-checked 8 to 12 weeks after treatment has been initiated, in line with manufacturers recommendations (Nash et al. 2020).

## Aims

To identify if patients prescribed Janus Kinase inhibitors have lipid levels checked in line with clinical consensus.

## Methods

A patient database was used to retrospectively search for and identify patients prescribed Janus kinase inhibitors and who had bloods performed in and available on the St Vincent's laboratory system

A total of 149 patients are prescribed Janus Kinase inhibitors at St Vincent's hospital by the rheumatology department. Out of 149 patients 51 were identified as having their blood taken and available on the St Vincent's laboratory system. These patients were included in the audit.

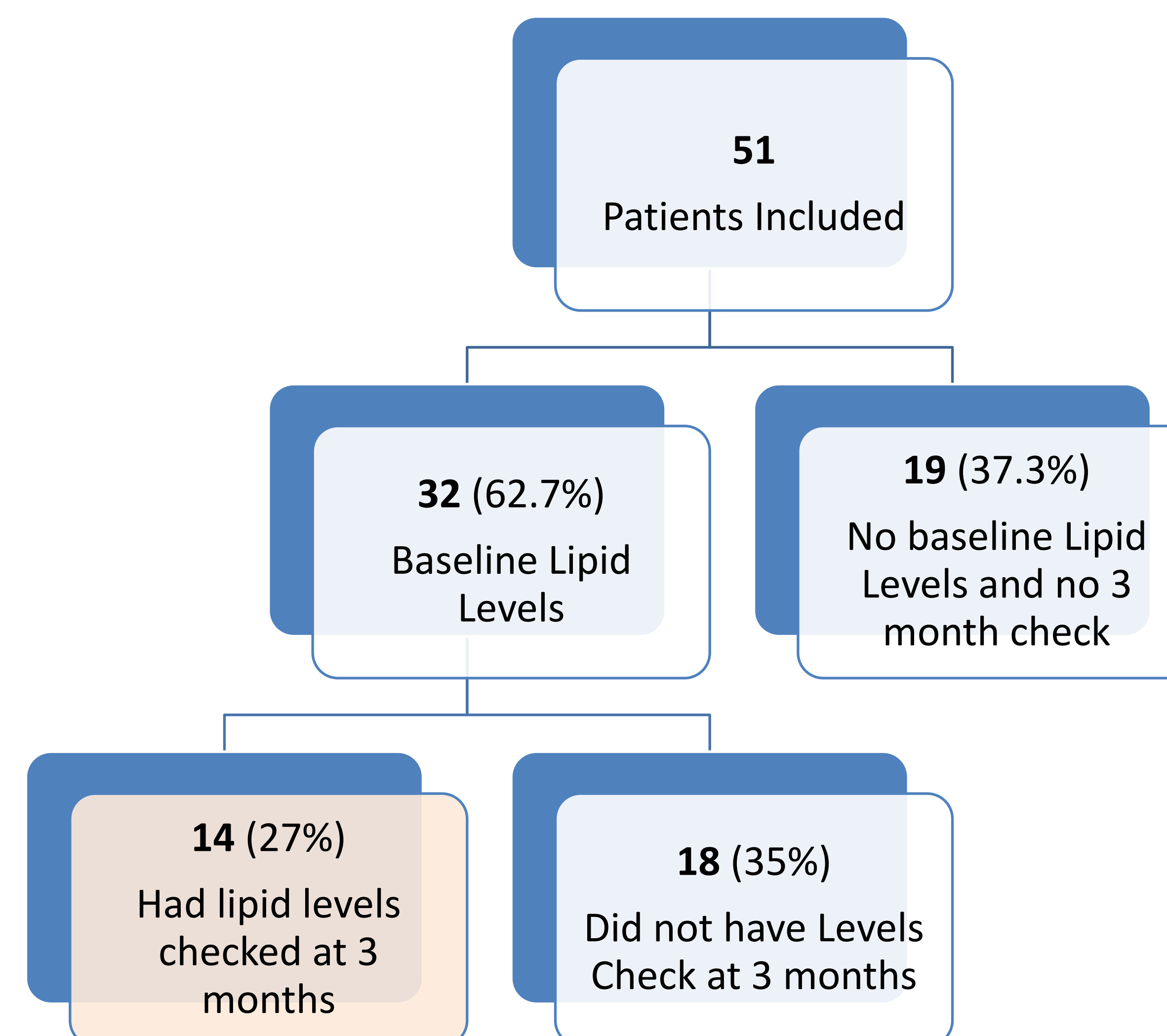
## Results

51 total patients

- 19 Patients had no baseline lipid levels and no lipid levels checked at 3 months.
- 32 patients had baseline lipid levels at the time of initiation of Janus Kinase therapy.
- 32 with baseline lipid levels.
  - Of this 32, 14 had lipid levels checked at 3 months.
  - Of this 32, 18 patients did not have lipid levels checked at 3 months.

## Results

- 62% of patients had baseline lipids at the time of initiation.
- However, only 27% of the overall patients had lipid levels checked at 3 months.



## Conclusion

A higher proportion of patients had lipid levels checked prior to commencement of a Janus Kinase inhibitor than during therapy.

However, overall levels of lipid monitoring in patients selected for this audit were inadequate.

## Plan and Implement Change

Re-Audit to assess increase in lipid monitoring.  
Recommend that patients have baseline lipids checked at the time of Janus Kinase prescribing for the first time.

## Confounding Elements

Many patients have their blood monitored in the primary care setting and these patients may have better monitoring of lipids.

## References

Nash, P., Kerschbaumer, A., Dörner, T., Dougados, M., Fleischmann, R., Geissler, K., McInnes, I., Pope, J., van der Heijde, D., Stoffer-Marx, M., Takeuchi, T., Trauner, M., Winthrop, K., de Wit, M., Aletaha, D., Baraliakos, X., Boehncke, W., Emery, P., Isaacs, J., Kremer, J., Lee, E., Maksymowych, W., Voshaar, M., Tam, L., Tanaka, Y., van den Bosch, F., Westhovens, R., Xavier, R. and Smolen, J., 2020. Points to consider for the treatment of immune-mediated inflammatory diseases with Janus kinase inhibitors: a consensus statement. *Annals of the Rheumatic Diseases*, 80(1), pp.71-87.