We analysed a total of 953 post-infusion reaction events to infliximab (IFX) and 330 vedolizumab (VDZ) infusions looking for incidences of complications within the current recommended observation periods. No immediate post-infusion reactions occurred in either the IFX or VDZ patients. In view of our findings, we have subsequently amended our post-infusion monitoring policy.

**RESULTS**

1152 infusions of IFX and 330 infusions of VDZ were administered over the 12 month period. The total post-infusion observation time for these patients was 953 hours. 10 infusion reactions occurred (0.9%), all in patients receiving IFX. 6/10 (60%) occurred within 10 mins of starting IFX infusion (immediate), 2/10 (20%) later during the infusion (acute), and 1/10 (10%) occurred 2 weeks after receiving the infusion (delayed). No infusion reactions occurred during the recommended post-infusion observation periods for patients receiving IFX infusions. No infusion reactions were observed in patients receiving VDZ either during, or in the recommended post observation period following their infusions.

**CONCLUSIONS**

- We analysed a total of 953 post-infusion observation hours after 1152 IFX and VDZ infusions in our nurse led IV biologic clinic between September 2016 and September 2017 to identify incidence and type of infusion reactions and at what time during the patients visit these occurred (Table 1).
- The biologic infusion service at the Royal London Hospital is seeing ever increasing activity. Facilitating this in a timely and safe manner with current clinic capacity and staffing levels is becoming increasingly difficult. Manufacturers of both IFX and VDZ recommend that patients are monitored following their infusion for defined periods, to observe for post infusion reactions. Patients receiving IFX infusions are monitored in our unit for 2 hours following their infusion for the first four infusions, 1 hour following infusions 5-9 and 30 minutes for each infusion thereafter. Patients receiving VDZ, are observed for 2 hours following the first 2 infusions.
- The introduction of ustekinumab, licensed without a defined post infusion observation period, led us to consider the need for post infusion observation periods in other patient groups.
- We wanted to explore whether, like ustekinumab, IFX and VDZ might not require such regulated and prolonged post infusion monitoring. If not required this would greatly increase capacity within the IV biologics clinics, allowing us to give biologics safely to a larger number of patients in order to meet the increasing demand.

**OBJECTIVES**

- We reviewed the infusion records of all patients receiving IFX and VDZ infusions in our nurse led IV biologic clinic between September 2016 and September 2017 to identify incidence and type of infusion reactions and at what time during the patients visit these occurred (Table 1).
- With expanding formularies, IBD biologics services throughout the UK are seeing increasing numbers of intravenous (IV) biologic infusions, often with little or no increase in service capacity.
- Ustekinumab has recently been licensed without the need for post infusion monitoring. We retrospectively reviewed 1152 infliximab (IFX) and 330 vedolizumab (VDZ) infusions looking for incidences of complications within the current recommended observation periods. No immediate post-infusion reactions occurred in either the IFX or VDZ patients. In view of our findings, we have subsequently amended our post-infusion monitoring policy.

**METHODS**

- 1152 infusions of IFX and 330 infusions of VDZ were administered over the 12 month period. The total post-infusion observation time for these patients was 953 hours.
- 10 infusion reactions occurred (0.9%), all in patients receiving IFX. 6/10 (60%) occurred within 10 mins of starting IFX infusion (immediate), 2/10 (20%) later during the infusion (acute), and 1/10 (10%) occurred 2 weeks after receiving the infusion (delayed).
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**BACKGROUND**

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**ABSTRACT**

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<table>
<thead>
<tr>
<th>Duration of Treatment</th>
<th>Onset of Reaction</th>
<th>Reaction Type</th>
<th>TDM</th>
<th>Management</th>
</tr>
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<tbody>
<tr>
<td>IFX</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2nd Induction Dose</td>
<td>Immediate</td>
<td>Moderate HSR</td>
<td>N/K</td>
<td>HCS 100mg IV O2</td>
</tr>
<tr>
<td>IFX</td>
<td>7/12</td>
<td>Immediate</td>
<td>Mild TL 0.3 ADA &gt;200</td>
<td>HCS 100mg IV CPM 10mg IV O2</td>
</tr>
<tr>
<td>IFX</td>
<td>5/12</td>
<td>Acute</td>
<td>Mild TL 1.2 ADA &lt;10</td>
<td>HCS 100mg IV CPM 10mg IV O2</td>
</tr>
<tr>
<td>IFX</td>
<td>7/12</td>
<td>Immediate</td>
<td>Moderate HSR</td>
<td>N/K</td>
</tr>
<tr>
<td>IFX</td>
<td>First Dose (previous exposure)</td>
<td>Delayed (2 weeks)</td>
<td>Delayed HSR</td>
<td>N/K</td>
</tr>
<tr>
<td>IFX</td>
<td>2nd Induction Dose</td>
<td>Immediate</td>
<td>Moderate HSR</td>
<td>N/K</td>
</tr>
<tr>
<td>IFX</td>
<td>4th Infusion</td>
<td>Immediate</td>
<td>Severe TL 0.3 ADA &gt;10</td>
<td>HCS 100mg IV CPM 10mg IV O2</td>
</tr>
<tr>
<td>IFX</td>
<td>5/12</td>
<td>Immediate</td>
<td>Moderate HSR</td>
<td>TL 0.3 ADA 20ng/mL</td>
</tr>
<tr>
<td>IFX</td>
<td>2nd Induction Dose (previous exposure)</td>
<td>After 1 hour</td>
<td>Moderate HSR</td>
<td>N/K</td>
</tr>
<tr>
<td>IFX</td>
<td>3rd Induction Dose</td>
<td>Immediate</td>
<td>Severe N/K</td>
<td>HCS 100mg IV CPM 10mg IV O2 Cyclozine 50mg IV IV fluids</td>
</tr>
</tbody>
</table>

HSR = Hypersensitivity Reaction, TL = Trough Level, ADA = Antidrug Antibodies, HCS = Hydrocortisone, CPM = Chlorphenamine

**Table 1. Infusion reactions by onset and type**