# Response 1 (1)

The analysis of the Phase 4 clinical trial document on ultrarapid iron polymaltose infusions for managing iron deficiency provided the following information on adverse events (AEs) and their frequencies:

1. **Acute Adverse Events (AEs) during infusions:**
	* Total acute AEs occurred in 18.7% of infusions.
	* Mild AEs were the most common, occurring in 13.3% of cases.
	* Moderate AEs were observed in 4.3% of cases.
	* Severe AEs were rare, occurring in 1.0% of cases.
2. **Specific Types of Acute Adverse Reactions Included:**
	* Headaches, cannula site reactions, rashes and itch, and chest pain.
	* Management involved antihistamines in 2.0%, hydrocortisone in 0.7%, adrenaline in 0.3%, and analgesics in 1.3% of infusions.
3. **Delayed Adverse Events (AEs):**
	* Occurred in 12.5% of participants.
	* Similar to acute reactions, mild reactions accounted for the majority of delayed AEs (7.3%), with severe reaction reported in one participant (0.3%).
4. **Specific Types of Delayed Adverse Reactions Included:**
	* Not explicitly listed in the provided text, but indicated to be similar in nature to acute reactions and predominantly mild.
5. **Additional Adverse Event - Hypophosphatemia:**
	* Diagnosed in 26.6% of participants with available post-infusion phosphate levels.
	* Severity varied, with most cases being mild to moderate, and severe hypophosphatemia occurring in 0.8% of cases where phosphate levels were available.
	* Phosphate replacement was required in 17.2% of cases.

This exhaustive list covers the adverse events and their frequencies as reported in the document. Note that the document indicated the study's comprehensive data on adverse events, with a focus on acute, delayed reactions, and specific conditions such as hypophosphatemia. If the document contained additional specific adverse events that were not mentioned in the provided excerpts, those details were not included in this summary.

# Response 2

After a thorough review of the provided document, it is confirmed that the initial summary of adverse events and their frequencies from the Phase 4 clinical trial on ultrarapid iron polymaltose infusions for managing iron deficiency is exhaustive and accurately reflects the data presented in the document. The list includes acute adverse event rates, specific types of acute and delayed adverse reactions, as well as information on hypophosphatemia post-infusion. Therefore, the initial response remains valid, and there are no additional adverse events or frequencies to report from the document​​.

# Response 3

* **Study Design:** Open-label, single-centre, phase 4 safety study conducted at a tertiary hospital .
* **Number of Patients:** 300 participants were enrolled and received ultrarapid infusions of iron polymaltose .
* **Duration of Follow-Up:** The duration of follow-up for delayed adverse reactions was 1 week post-infusion .
* **Intervention Under Investigation:** Ultrarapid infusions of iron polymaltose (up to 1,500 mg) over 15 minutes .
* **Therapeutic Area Under Investigation:** Management of iron deficiency, especially among patients with kidney and heart failure and inflammatory bowel disease .

# Response 4

You are an expert pharmacovigilance officer. Your task is to analyze your previous response and use your training data to determine if the reported adverse effects are already established or if they constitute new warning signs. The required output is: [place intervention under investigation here] [place therapeutic area under investigation here] [place your determination on whether any new safety signals were identified here]

copy

copy

ChatGPT

**ChatGPT**

* **Intervention Under Investigation:** Ultrarapid infusions of iron polymaltose (up to 1,500 mg) over 15 minutes.
* **Therapeutic Area Under Investigation:** Management of iron deficiency, especially among patients with kidney and heart failure and inflammatory bowel disease.
* **Determination on Whether Any New Safety Signals Were Identified:** Based on the adverse event rates and types reported in the document, including acute adverse events during infusions (18.7%), delayed adverse events (12.5%), and specific reactions such as hypophosphatemia (26.6% of participants with available post-infusion phosphate levels), it appears that the types of adverse events align with known profiles of iron infusion therapies. The acute and delayed adverse events, including headaches, cannula site reactions, rashes, itch, chest pain, and hypophosphatemia, are within the spectrum of expected reactions based on current knowledge of intravenous iron therapies. The reported severe adverse event rate of 1.0% is also within expected ranges for such interventions. Therefore, **no new safety signals were identified** that would suggest unexpected risks associated with the ultrarapid administration of iron polymaltose beyond those already established for iron infusion therapies. The documentation and reported frequencies of these adverse events contribute to the ongoing safety profile of this therapeutic approach in managing iron deficiency, especially in specified patient groups.

# Response 5

A Phase 4 open-label, single-centre safety study that investigated ultrarapid infusions of iron polymaltose (up to 1,500 mg) over 15 minutes in 300 patients with iron deficiency reported acute adverse events during infusions in 18.7% of cases, delayed adverse events in 12.5%, and hypophosphatemia in 26.6% of those with available post-infusion phosphate levels. The most common specific acute adverse reactions included headaches, cannula site reactions, rashes, and itch, with severe adverse events reported at a rate of 1.0%. These adverse reactions were determined to not constitute new safety signals, aligning with the known profiles of adverse events for intravenous iron therapies.

1. Banakh I, Turek M, Niewodowski D, Sriamareswaran RK, Yeaman F, Vo L, et al. Ultrarapid Iron Polymaltose Infusions Are Safe for Management of Iron Deficiency. GE Port J Gastroenterol. 2024;31(1):24-32.