Use of immunosuppressives in patients with hemophilia receiving gene therapy: Evidence generation using a mixed-methods approach

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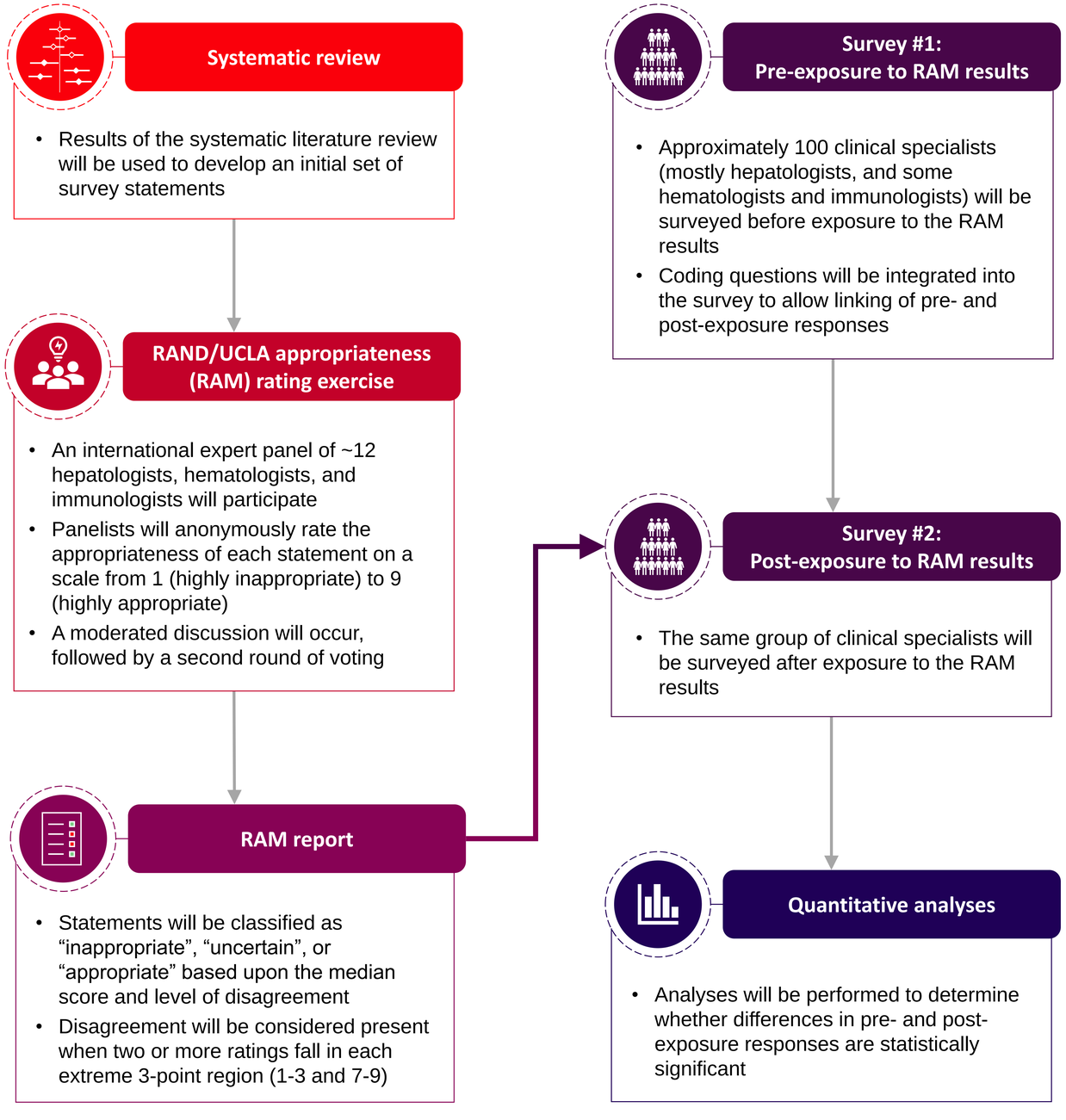
Background

- Gene therapies for the treatment of hemophilia A and B are poised to obtain regulatory approval and adeno-associated viral (AAV) vectors hold great potential for transgenic delivery[1]
- The use of AAV vectors can activate an immune response that results in elevated alanine aminotransferase (ALT) levels and reduced transgenic expression of factor VIII and IX[2-6]
- Prophylactic or on-demand immunosuppressives are commonly administered to minimize immune response and maintain transgene expression
- Evidence-based guidelines regarding the optimal immunosuppressive regimen (e.g., drug of choice, dosage, and timing/duration of therapy) are lacking

Study Objectives

1. Summarize the existing literature on concomitant immunosuppressive therapy in patients receiving gene therapy
2. Gather expert opinion regarding the appropriateness of various immunosuppressive regimens for use in hemophilia patients receiving gene therapy
3. Determine clinicians' existing beliefs and attitudes regarding the use of immunosuppressive therapy in hemophilia patients receiving gene therapy
4. Assess whether exposure to expert-generated recommendations can change clinicians' beliefs and attitudes

Methods



Results

- The proposed study design presents a novel, mixed-methods approach to generating evidence and identifying research priorities

Conclusion

- Concomitant use of immunosuppressives is prevalent in clinical trials of gene therapy for the treatment of hemophilia and requires further study

References

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Disclosures

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