Bispebjerg and Frederiksberg Hospital

Contraindicated Remdesivir Use Among Individuals Hospitalized Due to COVID-19: According to the Danish Treatment Guidelines

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Background

- Guidelines in Denmark, based on international guidelines contraindicate remdesivir use among individuals with estimated glomerular filtration rate (eGFR) < 30 ml/minute, dialysis, plasma alanine aminotransferase (ALT) > 5 times above the upper limit of normal, hypersensitivity against remdesivir, multiorgan failure, and use of more than one vasopressor against septic shock. Furthermore, Denmark had relative contraindications during pregnancy and breastfeeding.

Objective

- To evaluate whether remdesivir was administered to individuals who had a contraindication.

Methods

- Registry study using electronic health records to obtain information on hospitalizations in the Capital Region of Denmark.
- Inclusion: The first COVID-19 hospitalization of patients aged >=12 years with a primary diagnosis of COVID-19 between June 4th, 2020, and November 28th, 2021.
- Exclusion: Individuals in a remdesivir trial, hospitalized for less than four hours or starting remdesivir before COVID-19 diagnosis.
- Treatment was regarded as stopped or paused when there was one day without remdesivir treatment after initiation.
- Biomarkers and treatment with vasopressors or dialysis were assessed in the period between admission and remdesivir initiation.

Results

- In the Capital Region of Denmark, 5,534 individuals were hospitalized due to COVID-19
- 2,116 (38%) of these individuals were treated with remdesivir.
- Number of patients treated with remdesivir by contraindication:
  - On dialysis: Less than 3.
  - More than one vasopressor before remdesivir initiation: Less than 3.
  - While pregnant: 11 (0.5%).
  - With eGFR was <30 ml/minute: 19 (0.9%), and 245 (11.6%) were missing eGFR measurements.
  - With ALT elevated 5 times or more above normal level: 7 (0.3%), and 307(14.5%) had missing ALT measurements.

Conclusion

In the Capital Region of Denmark, remdesivir treatment in COVID-19 patients with a contraindication as defined by the Danish COVID-19 treatment guidelines was uncommon.

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