Remdesperate for Stewardship: Impact of a Remdesivir Stewardship Strategy on the Care of Patients with COVID-19 Admitted to a Community Teaching Hospital

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Background

- Use of remdesivir (RDV) in patients with COVID-19 has resulted in a significantly shorter time to recovery, especially in patients requiring low flow oxygen[1]
- Concerns persist regarding the $3,120 cost of a five-day course of therapy [2-4]
- Shortened length of stay has not been consistently demonstrated to justify cost of RDV therapy[2, 4]
- Review of RDV orders at our facility revealed delayed discharges to complete RDV treatment in patients otherwise medically suitable for discharge

Objective

- To assess the impact of a pharmacist-driven RDV stewardship initiative o the duration of therapy in hospitalized patients with COVID-19

Methods

- Single center, retrospective comparative study of adult patients with COVID-19 at AdventHealth Orlando
- Multi-faceted stewardship strategy included targeted education and escalation of RDV orders outside of criteria at order verification
- Pre-intervention: December 1, 2020-January 7, 2021
- Post-intervention: January 8, 2021-February 28, 2022

- **Primary outcome**: duration of RDV therapy
- **Secondary outcomes**: adherence to institutional algorithm, pharmacist intervention acceptance rates, length of stay, oxygenation status at time of RDV order

Criteria for Use

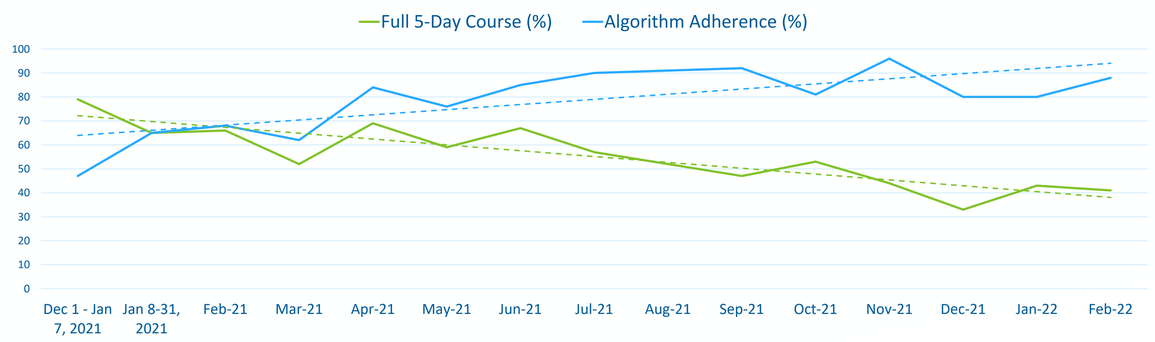
- January 8-March 24, 2021: patient requiring low flow oxygen at time of RDV order entry
- March 25-February 28, 2021: patient requiring low flow or high flow oxygen at time of RDV order entry

Results

Baseline Demographics	Pre-Intervention N=209	Post-Intervention N=1895
Male, n (%)	97 (46)	925 (49)
Age (years), median [IQR]	63 (50-72)	58 (45-69)
Baseline Oxygenation Status, n (%)		
Room Air	72 (34)	424 (22)
Low Flow Oxygen	98 (47)	1201 (63)
High Flow Oxygen	27 (13)	49 (3)
Mechanical Ventilation/ECMO	12 (6)	221 (12)
ID Consultation, n (%)	143 (68)	1092 (58)

Results	Pre-Intervention N=209	Post-Intervention N=1895	p-value
Days of RDV, mean ± SD	4.6 ± 1.1	4.0 ± 1.3	
Duration of Therapy (days), Median (IQR)	5.0 (5.0-5.0)	5.0 (3.0-5.0)	<0.0001
Length of Stay (days), Median (IQR)	7.0 (5.0-14.8)	7.0 (5.0-13.0)	0.0395
Pharmacist Intervention Acceptance, n (%)	N/A	31 (16)	-

Patients Completing Full 5-Day Course and Algorithm Adherence



Discussion

- Majority of patients in both groups required low flow supplemental oxygen at the time of RDV initiation, despite revision of criteria for use during the initiative to include patients receiving high flow oxygen
- A higher portion of patients in the post-intervention group received therapy in accordance with the institutional algorithm
- While pharmacist intervention acceptance rates were low, decreases in full 5-day courses of therapy and increased algorithm adherence were seen
- Timely discharge, when medically appropriate, is paramount to optimize cost effectiveness of patients receiving RDV

Conclusions

- Pharmacist-driven RDV stewardship increased adherence to the institutional algorithm and reduced duration of therapy

References

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Disclosures

Authors of this presentation have the following to disclose concerning possible financial or personal relationships with commercial entities that may have a direct or indirect interest in the subject matter of this presentation: All authors have nothing to disclose.

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