RESULTS: The PK profiles of the 1-day and 21-day initiation regimens (both in conjunction with either 441 mg or 882 mg doses of AL) were comparable, with therapeutically relevant aripiprazole levels achieved within 4 days of treatment initiation. The safety profile of the 1-day initiation regimen was similar to the 21-day initiation regimen, and consistent with that of AL. Aripiprazole concentration–time profiles demonstrated that each component delivered aripiprazole to the systemic circulation at different time periods, with the 30 mg dose of oral aripiprazole predominant in the first week, followed by ALNCD, and then AL.

CONCLUSIONS: The 1-day initiation regimen is well-tolerated and a suitable alternative to 21 days of oral aripiprazole supplementation for starting AL. Each component of the 1-day initiation regimen, together with AL, is necessary to provide continuous coverage from treatment initiation until the next regularly scheduled AL injection.

Funding Acknowledgements: This study was funded by Alkermes Inc.

28
How is Postpartum Depression Currently Diagnosed and Managed? Insights from a Virtual Patient Simulation

Jovana Lubarda, PhD[1]; Martin Warters[1]; Piyali Chatterjee[1]; Marlene P. Freeman, MD[2]; and Roger S. McIntyre, MD, FRCPC[3]

[1] Medscape Education, New York, NY
[2] Associate Professor of Psychiatry, Harvard Medical School, Massachusetts General Hospital, Boston, Massachusetts
[3] Professor of Psychiatry and Pharmacology, University of Toronto; Head, Mood Disorders Psychopharmacology Unit, University Health Network; Program Clinical Director, Mental Health and Addictions, The Royal Victoria Regional Health Centre, Toronto, Canada

ABSTRACT: Objectives: The goal of this study was to determine physician performance in diagnosis and management of postpartum depression (PPD) and to provide needed education in the consequence free environment of a virtual patient simulation (VPS).

METHODS:

- A continuing medical education activity was delivered via an online VPS learning platform that offers a lifelike clinical care experience with complete freedom of choice in clinical decision-making and expert personalized feedback to address learner's practice gaps
- Physicians including psychiatrists, primary care physicians (PCPs), and obstetricians/gynecologists (ob/gyns) were presented with two cases of PPD designed to model the experience of actual practice by including use of electronic health records
- Following virtual interactions with patients, physicians were asked to make decisions regarding assessments, diagnoses, and pharmacologic therapies. The clinical decisions were analyzed using a sophisticated decision engine, and clinical guidance (CG) based on current evidence-based recommendations was provided in response to learners' clinical decisions
- Impact of the education was measured by comparing participant decisions pre- and post-CG using a 2-tailed, paired t-test; $P < .05$ was considered statistically significant
- The activity launched on Medscape Education on April 26, 2018, and data were collected through to June 17, 2018.

RESULTS:

- From pre- to post-CG in the simulation, physicians were more likely to make evidence-based clinical decisions related to:
- Ordering appropriate baseline tests including tools/scales to screen for PPD: in case 1, psychiatrists ($n = 624$) improved from 34% to 42% on average ($P < .05$); PCPs ($n = 197$) improved from 38% to 48% on average ($P < .05$); and, ob/gyns ($n = 216$) improved from 30% to 38% on average ($P < .05$)
- Diagnosing moderate-to-severe PPD: in case 2, psychiatrists ($n = 531$) improved from 46% to 62% ($P < .05$); PCPs ($n = 154$) improved from 43% to 55% ($P < .05$); and, ob/gyns ($n = 137$) improved from 55% to 73% ($P < .05$)
- Ordering appropriate treatments for moderate-to-severe PPD such as selective serotonin-reuptake inhibitors: in case 2, psychiatrists ($n = 531$) improved from 47% CG to 75% ($P < .05$); PCPs ($n = 154$) improved from 55% to 74% ($P < .05$); and, ob/gyns ($n = 137$) improved from 51% to 78% ($P < .05$)
- Interestingly, a small percentage of physicians (average of 5%) chose investigational agents for PPD which were in clinical trials pre-CG, and this increased to an average of 9% post-CG

CONCLUSIONS: Physicians who participated in VPS-based education significantly improved their clinical decision-making in PPD, particularly in selection of validated screening tools/scales, diagnosis, and pharmacologic treatments based on severity. Given that VPS immerses physicians in an authentic, practical learning experience matching the scope of clinical practice, this type of intervention can be used to determine clinical practice gaps and translate knowledge into practice.

https://doi.org/10.1017/S1092852919000221 Published online by Cambridge University Press

Funding Acknowledgements: The educational activity and outcomes measurement were funded through an independent educational grant from Sage Therapeutics, Inc.

29
Cryptococcal Meningitis Leading to Fatal Outcomes in Immunocompetent Patients: A Case Study and Review of Literature

Cristhian Felipe Ramirez-Ramos, MD[1]; Diego Salinas-Cortes, MD[2]; Juan Diego Rivera-Marin, MD[3]; Maria Peralta-Agudelo, MD[3]; and Freddy Escobar-Montealegre, MD[3]

[1] Hospital Universitario Hernando Moncaleano Perdomo. Department of Internal Medicine. Neiva-Huila, Colombia
[2] Hospital Universitario Hernando Moncaleano Perdomo. Department of Infectious Diseases. Neiva-Huila, Colombia
[3] Universidad Surcolombiana. Neiva-Huila, Colombia

ABSTRACT: Introduction: Cryptococcal Meningitis is a fungal infectious disease of worldwide distribution, primarily associated with underlying immunosuppression conditions such as HIV infection, glucocorticoid treatment, status post organ transplantation and oncological treatments. Prevalence is particularly high in third-world countries where it constitutes one of the primary causes of central nervous system infections and may carry fatal outcomes. We present two cases of Cryptococcal Meningitis that portray the vast spectrum of clinical presentations associated with Cryptococcal Meningitis as well as relevant diagnostic and therapeutic implications.

METHODS: Case study - These adult otherwise healthy patients presented at a public urban university hospital in southern Colombia. Both had an unusual clinical course and suffered fatal outcomes despite being seemingly immunocompetent at baseline. A diagnosis of hepatic cirrhosis could have been considered a cause of immunosuppression in one of the patients and the diagnostic work-up for the other patient revealed no evidence of immunological deficiency.

DISCUSSION: Cryptococcal Meningitis affecting immunocompetent individuals has been increasingly reported in recent years. Furthermore, outcomes in this population are particularly worse than those generally affected by the disease. A review of the literature related to the possible immunological mechanisms' underlying the presented clinical course is included. We emphasize the importance of considering Cryptococcus spp. as a possible etiologic agent among differential diagnoses upon encountering suggestive meningeal conditions in immunocompetent patients.

Key words: Cryptococcus neoformans, Meningitis, Immunocompetent
Funding: None.

30
Lumateperone (ITI-007) for the Treatment of Schizophrenia: Overview of Placebo-Controlled Clinical Trials and an Open-label Safety Switching Study

Kimberly Vanover, PhD[1]; Steven Glass, MD[1]; Susan Kozauer, MD[1]; Jelena Saillard[1]; Juan Sanchez, MD[1]; Michal Weingart, PhD[1]; Sharon Mates, PhD[1]; Andrew Satlin, MD[1]; and Robert Davis, PhD[1]

[1] Intra-Cellular Therapies Inc., New York, NY

ABSTRACT: Background: Lumateperone is a first-in-class agent in development for schizophrenia that acts synergistically through serotonergic, dopaminergic and glutamatergic systems. Lumateperone is a potent 5-HT2A antagonist, a mesolimbic/mesocortical dopamine phosphoprotein modulator (DPPM) with presynaptic partial agonist and post-synaptic antagonist activity at D2, a glutamate GluN2B receptor phosphoprotein modulator with D1-dependent enhancement of both NMDA and AMPA currents via the mTOR protein pathway and an inhibitor of serotonin reuptake.

METHODS: Lumateperone was evaluated in 3 controlled clinical trials to evaluate efficacy in patients with acute schizophrenia. The primary endpoint was change from baseline on the PANSS total score compared to placebo. In Study '005, 335 patients were randomized to receive ITI-007 60 mg or 120 mg , risperidone 4 mg (active control) or placebo QAM for 4 weeks. In Study '301, 450 patients were randomized to receive ITI-007 60 mg or 40 mg , or placebo QAM for 4 weeks. In Study '302, 696 patients were randomized to receive ITI-007 60 mg or 20 mg , risperidone 4 mg (active control) or placebo QAM for 6 weeks. Also, an open-label safety switching study was conducted in which 302 patients with stable schizophrenia were switched from standard-of-care (SOC) antipsychotics and treated for 6 weeks with lumateperone QPM and then switched back to SOC.

RESULTS: In Studies '005 and '301, lumateperone (60 mg ITI-007) met the primary endpoint with statistically significant superior efficacy over placebo at Day 28. In Study '302, neither dose of lumateperone separated from placebo on the primary endpoint; a high placebo response was observed in this study. Across all 3 efficacy

https://doi.org/10.1017/S1092852919000221 Published online by Cambridge University Press