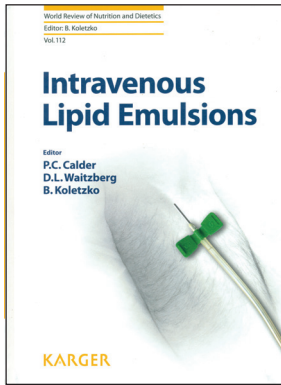


Book Reviews

Intravenous Lipid Emulsions. P.C. Calder, D.L. Waitzberg, B. Koletzko (eds). Karger, Basel, 2015. 186 pp, *prince not mentioned*. ISBN 978-3-318-02752-5.



Intravenous lipid emulsions (ILEs) are an indispensable component of parenteral nutrition. They are a concentrated source of energy, essential fatty acids and fat soluble vitamins. Whether it is the traditional soyabean oil-based emulsions or the new generation lipid emulsions—a juxtaposed cocktail of soy oil, medium chain triglycerides, olive oil, and fish oils (SMOF lipids), there is an array of lipid emulsions available in the pharmacy to choose from.

Each kind of lipid emulsion has varying proportions of medium chain saturated, long chain saturated, monounsaturated, n-6 polyunsaturated and n-3 polyunsaturated fatty acids which have distinct physiochemical properties and potential to lead to a different kind of immune response, inflammatory reaction, lipid peroxidation and hepatic metabolism, thus affecting patient outcome. Though enteral nutrition is the preferred and recommended method of nutrition therapy, under various situations parenteral nutrition becomes inevitable and clinicians are faced with multiple choices.

The present book on ILEs is a systematic, detailed and up-to-date compilation of information about intravenous nutrition beyond its role of providing energy and essential fatty acids. The modules in this compilation range from the basics (structure, function, metabolism of lipids, digestion, absorption, physiochemical properties and safety of fatty acids) to its contemporary roles in inflammation, immunity and the finer applications under various clinical situations such as preterm infants, surgical and critically ill patients and long-term home parenteral nutrition.

This book is a very impressive compilation of the literature on the subject. It should be a part of the personal collection of nutritionists, basic scientists working on this aspect of translational medicine and all clinicians interested in clinical nutrition, whether they are surgeons, paediatricians or intensivists. The book has finesse in terms of paper quality and binding with an interesting layout, giving a summary of the discussions at the end and an abstract at the beginning of each chapter.

Three chapters have been dedicated to paediatric nutrition; one of these is on the role of dietary n-3 and n-6 long chain polyunsaturated fatty acids in the early-life nutrition programming for body composition, neurological and cognitive development and allergic diseases. This chapter does not talk about ILEs in particular but fits well into the general flow of the book and precedes the two chapters on preterm and term infants, where the more specific aspects such as importance of monitoring during lipid administration and safety of early parenteral nutrition in neonates are discussed along with the concerns of hepatic complications from using first generation lipid emulsions compared to the newer generation lipid emulsions. The chapters on intestinal failure associated liver disease (IFALD) and ILE in home parenteral

nutrition discuss in detail the dark side of parenteral nutrition and the pathophysiology of IFALD and its prevention. The role of SMOF lipids containing fish oils as a pharmacconutrient and an anti-inflammatory agent has been discussed. Similarly, the chapters on the adult surgical and intensive care unit patients discuss the benefits of olive oil and fish oil-based lipid emulsions and highlight their importance in improving secondary outcome parameters such as length of hospital stay. However, there is a lack of evidence for any benefit on survival.

Though this book has been authored by well-informed, accomplished international groups, it is Euro-centric and fails to give the opinion of the transatlantic counterparts of the authors, especially with the inclination of the European research groups towards early supplemental parenteral nutrition *vis-a-vis* the Americans who focus on enteral nutrition when it comes to medical nutrition therapy.

The debate between the traditional n-6 rich soy-based lipid emulsions and the n-3 rich newer generation fish oil-based lipid emulsions is the very essence of this book. However, for the same reason, the literature seems repetitive. The complexity of the clinical situations and the short duration of use of ILE preclude the appreciation of any independent effect of ILE on patient outcome, especially in the critical care setting. The debate is ongoing and inconclusive and a well-planned, large, randomized, controlled trial could underline the role of new generation lipids, especially in surgical or paediatric patients on long-term parenteral nutrition.

This book is a richly documented, professionally written and informative piece and could be recommended reading for a deeper understanding on lipid emulsions.

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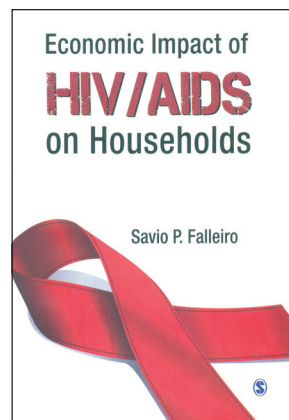
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Economic Impact of HIV/AIDS on Households. Savio P. Falleiro. Sage Publication, New Delhi, 2014. 229 pp, 845. ISBN 978-81-321-1359-1.

The global fight against HIV/AIDS has shown many unique features. We have witnessed excellent examples of partnerships between researchers and the industry, government and non-governmental organizations and programme managers and people infected and affected with HIV. The national and international agencies as well as foundations, trusts and other philanthropic bodies came forward to support research, treatment and care. The HIV/AIDS epidemic in India, with a projected estimated burden of more than 5.2 million HIV infections in 2005–06, remained at a lower trajectory with an estimated burden of 2.3 million and an estimated prevalence of less than 3 per 1000 in the sexually active population. In this regard, HIV/AIDS prevention and control initiatives in India can be considered a success story against the



background of the many failures in prevention and control of communicable diseases in India. Serious political commitment, systematic programme management, effective implementation of prevention and control strategies and significant efforts in the public and private sectors to create awareness in the population have collectively resulted in checking the rapid spread of HIV in India. Therefore, the HIV epidemic did not explode the way it did in Africa, and the

social as well as economic impact seen in India is believed to be of much lower magnitude compared to that in Africa.

The author, Savio Falleiro, has explained that it is important to explore the economic impact of HIV/AIDS in settings with low HIV prevalence much more carefully, to more meaningfully address the economic needs of people living with HIV/AIDS. The book has been based on the lessons learnt from Goa in India. Goa has a unique socioeconomic, geographic and multicultural background. Its heavy dependence on tourism and considerable presence of high-risk populations and their high-risk behaviours are well documented. It is for this very reason and the unique and uncommon settings in which the data have been gathered that the applicability of these findings in other Indian settings should be accepted with abundant caution, although the readers gain some insight into the intended subject of this book. This is a case wherein the knowledge gained is important, but the lessons learnt have limited applicability.

This book is based on a project in Goa. The objectives of the original project are not very explicitly mentioned and the methodology described in the appendix misses the detail. These points create some limitations on correctly interpreting the data that has been presented. Also, a major limitation of the study is its small sample size.

The author initially presents the scenario of HIV/AIDS and then goes on to describe the economic impact in terms of income and employment as well as on inflow and outflow of household income. The concluding chapter includes a discussion on the gaps and research needs in this area.

Describing the extent of the epidemic in India, the author narrates that the HIV epidemic in Goa is more pronounced in its coastal region and provides some information on gender dimension of the HIV/AIDS epidemic as well as on the various subpopulations affected by the disease in the region. The author highlights the fact that the economic impact of the HIV/AIDS epidemic is not necessarily felt at the national level, but at the community and household levels. While discussing the economic losses, the

authors conclude that following any death due to AIDS, average earnings lost per person per month as well as average funeral expenses are around ₹5000 in the study area. It has also been stated that with the occurrence of AIDS, nearly 50% of working people either lose their jobs or are required to change their jobs, thus posing financial hardship on their households. However, the analysis presented by the author also highlights that HIV-infected persons are afraid of disclosing their HIV status to their employers and they often succeed in keeping this a secret. Interestingly, there is no major workplace discrimination and employers even provide some level of support. The data presented on economic aspects of care-giving are interesting. The book has covered the not well-documented aspect of the additional economic burden due to the death of non-HIV earning members.

Analysis of household expenditure highlights that spending on medical expenditure for hospitalization and other outpatient care is higher in HIV households, resulting in overall impoverishment. This in turn affects the spending on food and other household commodities in these families compared to non-HIV households. Paradoxically, despite the increase in need for medical expenditure, the instances of seeking medical care decrease with longer durations of HIV infection due to sheer inability to spend. Interestingly, savings in the non-HIV households are not significantly more than those in HIV households. As expected, the HIV households have high borrowings as well as unrequited and undisclosed income compared to non-HIV households. Based on the findings of this study, the author has made specific recommendations on preventive as well as curative measures which are not unique. So, the way forward continues to remain unclear.

This high-priced book will provide some programmatic guidance to health managers in India who are managing HIV/AIDS programmes in high disease burden areas and useful information to the undergraduate and postgraduate students of economics, sociology and social work as well as non-governmental and community-based organizations carrying out activities related to treatment, care and referral of HIV/AIDS. The researchers and programme managers from severely affected countries will also find this analysis useful, especially in the context of coping mechanisms. In the rapidly changing scenario of HIV/AIDS in India, decreasing disease burden, decreasing social stigma and societal discrimination and better access to antiretroviral programmes of the government as well as other healthcare programmes, this book would require a critical revision in the next three to five years.

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