Is Hemodiafiltration the Current Gold Standard?

Guest Editor
Claudio Ronco, Vicenza
The buttonhole method for the cannulation of the arteriovenous fistula was discovered more than 40 years ago and was soon adopted on a wide scale due to its obvious benefits of decreased puncture pain and extension of the life of the arteriovenous fistula. Following reports of complications such as a higher incidence of access-related infections, the method has lately been the subject of intense scrutiny; recent research has focused on the mechanisms of buttonhole access-related infections and newer techniques that may have bearing on the future use of the buttonhole method.

This book presents an easily accessible overview of information relevant to the subject, including history, benefits and the latest research results related to the buttonhole cannulation method. It aims to rekindle an awareness of the advantages of this method and to encourage a critical analysis of possible techniques to overcome current barriers that prevent a wider spread of the technique.

Contents
- History of the Buttonhole Technique: Misra, M.
- Buttonhole Tunnel Tract Creation with the BioHole® Buttonhole Device: King, J.
- Causes and Solutions of the Trampoline Effect: Miwa, M.; Ota, N.; Ando, C.; Miyazaki, Y.
- Relationship between Years Elapsed after Initial Buttonhole Cannulation and Frequency of Vascular Access-Related Infections: Toma, S.
- Long-Term Safety of Buttonhole Cannulation and Efficacy of Mupirocin Prophylaxis: Agarwal, A.; Nesrallah, G.

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Aims and Scope

Practical information on hemodialysis, hemofiltration, peritoneal dialysis and plasma filtration is featured in this journal. Recognizing the critical importance of equipment and procedures, particular emphasis has been placed on reports, drawn from a wide range of fields, describing technical advances and improvements in methodology. Papers reflect the search for cost-effective solutions which increase not only patient survival but also comfort through prevention or correction of undesirable effects. Advances in vascular access and blood anticoagulation, problems associated with exposure of blood to foreign surfaces and acute-care nephrology, including continuous therapies, also receive attention. Nephrologists, internists, intensivists and hospital staff involved in dialysis, apheresis and immunoadsorption for acute and chronic solid organ failure will find this journal useful and informative.

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- **Editorials** are usually invited by the Editor (max. 1,000 words). Please send suggestions to the Editor.

- **Methods in Blood Purification** papers dealing with methodological issues in blood purification studies (e.g., recruitment, exclusion and inclusion criteria, methodological evaluation, novel approaches to clinical trials, statistical analyses and follow-up problems and solutions), particularly with regard to on-going large population-based studies, controlled clinical trials, cohort and case-control studies are welcome (max. 5,000 words).

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Chronic kidney disease (CKD) is a growing worldwide public health problem resulting from the increasing number of patients with diabetes and hypertension, but also from the aging of the population. As the pathology associated with CKD appears to become more complex with age, it is essential to improve the prognosis of patients suffering from CKD by developing effective measures to prevent and control complications for the elderly.

The publication at hand makes a significant contribution to achieving this goal, with renowned Japanese scientists presenting their recent research results. Papers cover various aspects of CKD and related morbidities, ranging from dialysis- and access-related issues to bone disorders, tissue engineering, or hyperphosphatemia.

Due to the wide range of topics presented, this book will be of interest to readers in various clinical and research settings connected with the care for the elderly.
Contents

See the journal website for contents
The fifth revised edition of this highly successful book presents the most extensive enhancement since Using and Understanding Medical Statistics was first published 30 years ago. Without question, the single greatest change has been the inclusion of source code, together with selected output, for the award-winning, open-source, statistical package known as R. This innovation has enabled the authors to de-emphasize formulae and calculations, and let software do all of the 'heavy lifting'.

This edition also introduces readers to several graphical statistical tools, such as Q-Q plots to check normality, residual plots for multiple regression models, funnel plots to detect publication bias in a meta-analysis and Bland-Altman plots for assessing agreement in clinical measurements. New examples that better serve the expository goals have been added to a half-dozen chapters. In addition, there are new sections describing exact confidence bands for the Kaplan-Meier estimator, as well as negative binomial and zero-inflated Poisson regression models for over-dispersed count data.

The end result is not only an excellent introduction to medical statistics, but also an invaluable reference for every discerning reader of medical research literature.

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Not only are dialysis access creation and maintenance prone to complications, but patients suffering from end-stage renal disease and its comorbidities generally have a high risk of adverse events during their continuous treatment. Preventive strategies are key to avoid harm and to improve the outcome of the treatment of the growing number of patients with chronic kidney failure, especially as doctors and nurses are not always aware of the consequences of unsafe behavior.

This publication is intended for health care professionals – nurses as well as doctors – and aims to raise the awareness of patient safety aspects, combining medical education with evidence-based medicine. After a general overview of the topic, an international panel of authors provides a diversified insight into important concepts and technical tricks essential to create and maintain a functional dialysis access.

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