

## Preface



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*Guest Editors*

“Tous les liquides circulant, la liqueur du sang et les fluides intra-organiques constituent en réalité ce milieu intérieur [All circulating fluids, blood plasma and fluid within organs in reality constitutes this “milieu intérieur”]

Claude Bernard

The French physiologist Claude Bernard recognized that the world inhabited by our cells is not the external world at all, but an internal world of fluids and electrolytes reminiscent of the sea from which we came. We believe that a good foundation in physiology and pathophysiology will enhance any clinician's approach to his or her patient. A conscientious, thoughtful evaluation of the laboratory results provides valuable insight into the fluid, electrolyte, and acid-base status of the patient and should improve veterinary care. With the advent of point-of-care instruments and sophisticated in-house laboratory analyzers, today's veterinarians have access to laboratory data we could only dream about 30 years ago. Puzzling over electrolyte and acid-base data is no longer just the province of those of us in academia. Now that such information is widely available, it is incumbent upon all clinicians to understand it and apply it properly. We hope that the articles collected in this edition of *Veterinary Clinics of North America: Small Animal Practice* will be helpful in that regard, and we thank all of the contributors who sacrificed their time to share their experience in managing small animal patients with fluid, electrolyte, and acid-base disturbances.

This issue is divided into three sections. First, a quick reference section provides short articles that cover the crucial information needed to quickly assess

the patient's acid-base and electrolyte (sodium, potassium, chloride, calcium, magnesium, and phosphorus) status. In the second section, selected diagnostic and therapeutic topics are reviewed in more depth. Finally, the last section of the issue covers general principles of fluid therapy for crystalloids, colloids, and human serum albumin and complications of fluid therapy. Finally, the use of fluid therapy in special situations, such as pediatric patients, trauma patients, renal failure, diabetic ketoacidosis, hypoadrenocorticism, gastrointestinal disease, pulmonary disease, and cardiac disease is covered. We hope you find the information in these articles useful in your daily practice of veterinary medicine, and we encourage you to contact us to make suggestions, correct errors, or provide input on controversial issues. As always, readers are encouraged to continue reading the current biomedical literature to increase understanding and move the practice of veterinary medicine forward. Finally, we thank John Vassallo at Elsevier/Saunders for suggesting this project and nurturing it to fruition.

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