

**Safe installation and operation of
hemodialysis and peritoneal dialysis in
a home setting**



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Preface

This is the first edition of CSA Z364.5, *Safe installation and operation of hemodialysis and peritoneal dialysis in a home setting*.

Home hemodialysis and peritoneal dialysis (home dialysis) are installed and carried out through a variety of practices. While the basic requirements are fundamentally similar among organizations, the methodology varies. This Standard has been developed to provide nephrology personnel with a Standard for improving quality and providing expert guidance to Canadians undergoing home hemodialysis and peritoneal dialysis treatment.

This Standard was prepared by the Technical Committee on Kidney Dialysis, under the jurisdiction of the Strategic Steering Committee on Health Care Technology, and has been formally approved by the Technical Committee.

November 2010

Notes:

- (1) Use of the singular does not exclude the plural (and vice versa) when the sense allows.
- (2) Although the intended primary application of this Standard is stated in its Scope, it is important to note that it remains the responsibility of the users of the Standard to judge its suitability for their particular purpose.
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CSA gratefully acknowledges that the development of this Standard was made possible, in part, by the financial support of BHC Medical, Fresenius Medical Care Inc, Gambro, Baxter, Covidien, Charles River, Canadian Association of Nephrology Nurses and Technologists, Mar Cor Purification, Chief Medical, Siemens Water Technologies Canada Inc, and CardioMed Supplies Inc.

Z364.5-10

Safe installation and operation of hemodialysis and peritoneal dialysis in a home setting

0 Introduction

Since the introduction of home hemodialysis and peritoneal dialysis (home dialysis) to Canada more than thirty years ago, these technologies have developed into an increasingly important treatment option for clients with renal disease. The benefits of home dialysis for the client are many and include greater flexibility and convenience, more time with family, a greater sense of independence and control, fewer transportation issues, fewer admissions to hospital, and mounting evidence of improvements in long-term clinical outcomes.

Although in most cases home dialysis is taking place safely, it has become apparent that as the number of Canadians needing renal replacement therapy grows, the industry needs a common home dialysis Standard to provide consistent requirements and practices. While the basic set-up requirements are fundamentally similar among dialysis providers, the methodology varies, and as a result the outcomes can be inconsistent. This Standard was developed to resolve these inconsistencies and improve the use of best practices across Canada.

1 Scope

1.1

This Standard specifies requirements for the safe installation and operation of hemodialysis and peritoneal dialysis performed in a home setting. It is intended for use by dialysis providers, including health care workers and professionals who perform technical and operational functions associated with home dialysis, as well as stakeholders who have an interest in safety or related quality assurance (e.g., professional associations, regulators, and consumers).

This Standard is intended to provide a comprehensive, integrated, and consistent management framework to ensure that a completed home dialysis set-up and its major systems meet the necessary technical and operational requirements. The major systems covered include

- (a) quality management;
- (b) home assessment;
- (c) physical space requirements;
- (d) plumbing requirements;
- (e) water requirements;
- (f) electrical requirements;
- (g) supply storage and waste management;
- (h) emergency preparedness;
- (i) client and caregiver training; and
- (j) documentation and records.

1.2

This Standard is not intended to apply to hemodialysis or peritoneal dialysis performed in a hospital or a regional dialysis clinic setting.