

NURSING SERVICE GUIDELINES HEMODIALYSIS

Guideline: Recirculation Studies for
Dialysis Access



Policy Number Superseded:

Responsibility: Hemodialysis Registered Nurse

Effective Date:
June 2024

Purpose of Guidelines:

Initial Effective Date:
March 1996

Equipment:

- Three 3ml green top blood tubes with labels
- Three 3ml syringes
- Two nurses
- Three lab slips

Procedure:

- (A) Initiate hemodialysis per protocol.
- (B) After 15 minutes of treatment, turn off ultrafiltration rate. Two nurses should draw samples from the arterial and venous ports of the blood lines at the same time.
- (C) Immediately decrease blood pump speed to 50ml/min, set venous pressure upper limit to 400mm Hg, and clamp venous line.
- (D) When venous pressure reaches 400mm Hg, or at 30 seconds, draw a “peripheral” sample from the arterial port.
- (E) Label the 3 tubes and complete the lab order in Epic (3), for venous, arterial, and peripheral sites. Enter BUN and Cr, and specify recirculation studies.
- (F) When results are available, calculate results.

Peripheral value subtract arterial value X 100 = the % of peripheral value subtract venous value rejection. A 15% recirculation value is an expected norm. Any percentage value greater than 15% warrants an access evaluation or change.

Guideline:
Recirculation Studies for Dialysis Access

2

References: ANNA Core Curriculum for Nephrology Nursing, 6th Edition 2015, Caroline S. Counts, Editor

Approved by:
Kurt Kless, MSN, MBA, RN, NE-BC
Chief Nursing Officer

Initial effective date:
March 1996

Review/Revision Completed by:
Paula Kosmider, BSN, RN

Review/Revision Date:
June 1999
July 2002
July 2003
July 2005
April 2008
February 2011
May 27, 2011
September 2011
May 2015
July 2016
May 2017
April 2021
June 2024

Next review date:
June 2027