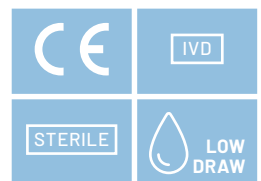




# PRESERVING PATIENT BLOOD WITH SAMPLE VOLUME MANAGEMENT



## Why Low Volume Blood Collection Tubes?

An excessive volume of blood collected from a patient, particularly from critically ill or pediatric patients during hospitalization, can seriously impact the patient's health as well as their recovery and any resulting follow-up care. While larger sample volumes may be common in everyday practice, they are often unnecessary for routine diagnostic testing<sup>1</sup>.

Patient Blood Management (PBM) is a broad, patient-centered approach that aims to improve patient outcomes by managing anemia, minimizing blood loss, and optimizing transfusion practices. Sample volume management (SVM), on the other hand, is a more specific aspect of laboratory procedures, focusing on selecting of appropriate sample volume and at the same time ensuring accurate and reliable test results.

By choosing VACUETTE® Low Volume Blood Collection Tubes or opting to take a capillary sample with MiniCollect® Capillary Blood Collection Tubes, a significant impact can be made on the amount of blood collected from patients while still ensuring sufficient volume to carry out accurate diagnosis.

### REDUCING THE AMOUNT OF BLOOD COLLECTED

Greiner Bio-One offers a complete line of low volume tubes with draw volumes of 1ml to 2.5ml, as well as a range of capillary blood collection tubes to facilitate reduction of phlebotomy volumes. These solutions support hospital efforts to minimize unnecessary blood loss and reduce specimen waste.



## PRODUCT OVERVIEW

THIS OVERVIEW PROVIDES A SELECTION OF AVAILABLE TUBES.  
FOR MORE INFORMATION, PLEASE REFER TO OUR  
PRODUCT CATALOG OR THE WEBSHOP.

### VACUETTE® Low Volume Blood Collection Tubes

Item No.	Volume	Additive	Cap color	Ring color	Thread type	Tube size	Label type	Inner / Outer [Qty.]
454236	2 ml	CAT Serum Clot Activator	● red	○ white	non-ridged	13 x 75	paper	50 / 1,200
454243P	2.5 ml	CAT Serum Separator Clot Activator	● red	○ white	non-ridged	13 x 75	paper	50 / 1,200
454081	1 ml	LH Lithium Heparin	● green	○ white	PREMIUM	13 x 75	paper	50 / 1,200
454237	2 ml	LH Lithium Heparin	● green	○ white	non-ridged	13 x 75	paper	50 / 1,200
454428	2 ml	K2E K2EDTA	● lavender	○ white	non-ridged	13 x 75	paper	50 / 1,200
454222	2 ml	K3E K3EDTA	● lavender	○ white	non-ridged	13 x 75	paper	50 / 1,200
454322	2 ml	9NC Coagulation Sodium Citrate 3.2 %	● light blue	○ white	non-ridged	13 x 75	paper	50 / 1,200
454238	2 ml	FX Sodium Fluoride / Potassium Oxalate	● grey	○ white	non-ridged	13 x 75	paper	50 / 1,200

## TAKE HOSPITAL ACQUIRED ANEMIA SERIOUSLY



Hospital-acquired anemia (HAA), also known as iatrogenic anemia, develops in patients during their hospital stay, after being admitted with normal hemoglobin levels.

Laboratories often collect more blood than is needed: blood sample volume can sometimes exceed the amount needed by more than 40 times, which leads to most of the collected blood sample being discarded.

- / 40-74% of hospitalized patients develop HAA before being discharged.<sup>2</sup>
- / 90% of intensive care patients develop HAA by their third day in the ICU.<sup>2</sup>
- / Up to 85% of ICU patients receive at least 1 unit of blood if staying for over a week.<sup>3</sup>

#### Sources:

- 1 Pennestri F, Tomaiuolo R, Banfi G, Dolci A. Blood over-testing: impact, ethical issues and mitigating actions. Clin Chem Lab Med. 2024 Jan 1. doi: 10.1515/ccim-2023-1227
- 2 Choorapoikayil, S., Zacharowski, K., Füllenbach, C., Meybohm, P. (2018). Patient Blood Management in Critically Ill. In: Shander, A., Corwin, H. (eds) Hematologic Challenges in the Critically Ill. Springer, Cham. [https://doi.org/10.1007/978-3-319-93572-0\\_21](https://doi.org/10.1007/978-3-319-93572-0_21)
- 3 Helmer P, et al. Avoidable Blood Loss in Critical Care and Patient Blood Management: Scoping Review of Diagnostic Blood Loss. J Clin Med. 2022 Jan 10; 11(2):320. doi: 10.3390/jcm11020320. PMID: 35054014; PMCID: PMC8777821.