Background
Most neonates in the Neonatal Intensive Care Unit (NICU) demonstrate critical conditions since birth, therefore frequent blood draws are often inevitable for disease diagnosis and surveillance; however, phlebotomy in this population is a difficult procedure. Increased blood collection frequencies and amount may result from laboratory technical limitations such as hemolysis, coagulation or insufficient specimen.

Purpose
The aim of this study is to reduce unnecessary blood loss by utilizing the Point-of-Care Testing (POCT) method.

Resolution
The following solution is
1. Introduce POCT to the nursing staff members,
2. Create a standard of procedure protocol of “Point-of-Care Flowchart”,
3. Execute POCT and modify accordingly.

Results
After executing the POCT method, the unnecessary blood loss of the neonates in the NICU collected within seven days of birth reduced from 10ml to 4.62ml, and frequencies of venous punctures decreased from 68.8% to 16.3%.

Conclusions
POCT can effectively decrease puncture frequencies and amount of unnecessary blood loss, promote the safety of neonates in the NICU and enhance quality of care.