

EBP, QI, and IS in action

The following example illustrates the use of evidence-based practice (EBP), quality improvement (QI), and implementation science (IS) principles to solve a clinical problem.

Clinical Problem: An inpatient medical unit has a high contamination rate of blood cultures.

Component	EBP	QI	IS
Process	Review current research evidence to determine best practices for how to obtain blood cultures.	Barriers identified within the medical unit include the following: 1. No standard instructions for how to draw blood cultures; 2. Supplies scattered in different locations.	Barriers to implementation within the medical unit include the following: 1. Lack of knowledge of the evidence; 2. Low perception/priority given to blood culture collection.
Implementation	Pilot the identified changes in practice.	PDSA cycle 1. Develop written instructions with pictures for obtaining blood cultures. PDSA cycle 2. Develop instructional videos. PDSA cycle 3. Develop easily accessible blood culture kits.	Use multiple evidence-based strategies to implement evidence-based blood culture practices, including audit and feedback, educational outreach visits, and educational materials.
Evaluation	Collect pilot data to determine if the change is appropriate for adoption in practice.	Use a run chart to identify signals of improvement. (See figure below.)	Evaluate data to determine changes in process (for example, nurse's adherence to the EBP) and outcome measures (for example, blood culture contamination rates).

