



Safety flows  
through  
*me*

# BD Vacutainer® UltraTouch™ Push Button Blood Collection Set

Enabling improved blood culture collection to aid diagnostic accuracy



# The facts about sepsis

Sepsis is a life threatening condition caused by the body's response to an infection, resulting in organ dysfunction and failure.<sup>1</sup>

|  |  |   |  |
|--|--|---|--|
|   |   |   |   |
| Globally, an estimated <b>31.5 million cases of sepsis</b> are diagnosed each year, with an estimated <b>5.3 million deaths</b> . <sup>2</sup> | As a leading cause of mortality and critical illness worldwide, sepsis hospital mortality rates range from <b>25%–30%</b> . <sup>2</sup> | Clinical studies have demonstrated <b>a two-fold increase in mortality</b> caused by sepsis when inappropriate antimicrobial therapy is given. <sup>3</sup> | Sepsis has the <b>highest cost per stay at \$18k</b> which accounts for 5.2% of national U.S. costs and is the most expensive condition to treat. <sup>4</sup> |

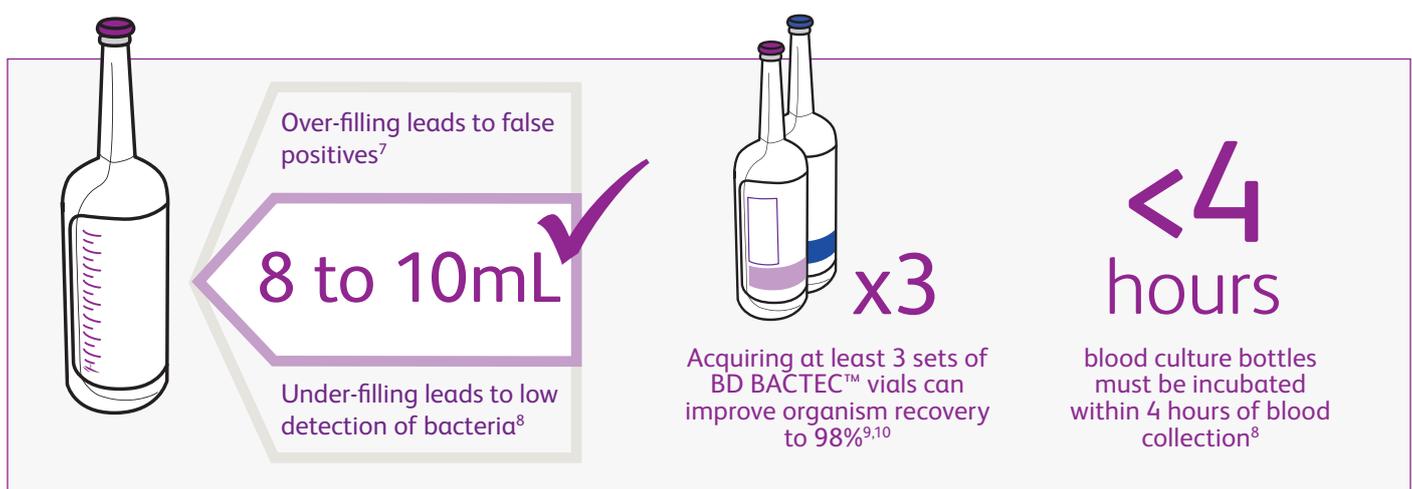
## Blood culture is critical for detecting and treating sepsis<sup>5</sup>

The pathway to the right diagnosis begins with the blood culture sample collection

Challenges in patient preparation and sample collection can result in preanalytical errors, accounting for up to 62% of all errors made in routine chemistry laboratory diagnosis.<sup>6</sup> These errors may also occur in blood culture sample collection as the methods of blood collection are similar.

Best practice in sample collection aims to minimise contamination and ensures that sufficient blood volume is collected. If contamination occurs or insufficient blood is collected, it may be impossible to accurately recover the organism(s) causing infection and may affect diagnosis and treatment of the patient.

Contamination-free, total blood volume, and time to incubation play a vital role in accurate diagnostics based on best practices below\*:



Over-filling leads to false positives<sup>7</sup>

**8 to 10mL** ✓

Under-filling leads to low detection of bacteria<sup>8</sup>

**x3**

Acquiring at least 3 sets of BD BACTEC™ vials can improve organism recovery to 98%<sup>9,10</sup>

**<4 hours**

blood culture bottles must be incubated within 4 hours of blood collection<sup>8</sup>

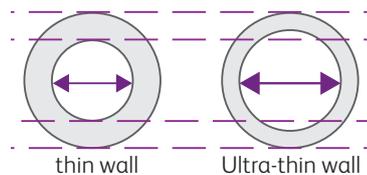
\* best practices are based on adult volumes. Please refer to your local guidelines when collecting blood from younger and critically anaemic patients

## Advances in technology can help improve blood volume collection

Sufficient blood volume is one of the critical determinants for an optimal yield of organisms. The yield of pathogens increases in direct proportion to the volume of blood cultured.<sup>11</sup>

The BD Vacutainer® UltraTouch™ Push Button Blood Collection Set incorporates BD RightGauge™ Ultra-Thin Wall Cannula Technology, which:

1. Allows greater sample fill volume to be collected in blood culture bottles<sup>12</sup>
2. Improves blood flow rates<sup>12</sup>
3. Provides a larger inner diameter while maintaining a set outer diameter and depending on gauge size can provide various levels of patient comfort<sup>13</sup>



## BD Vacutainer® UltraTouch™ Push Button Blood Collection Set can show improvements in blood volume and collection time

In a study, the 25 gauge BD UltraTouch™ has an average flow rate of 0.2195 mL/sec<sup>12</sup>. Using the recommended volume required for a blood culture bottle, 10mL, the total time for collection can be calculated as given below to enable comparison with another device:

- $10\text{mL} \div 0.2195 \text{ mL/sec} = 46 \text{ seconds}$  per bottle using BD UltraTouch™. In comparison with BD PushButton™ the total time is **98 seconds** per bottle. This means that BD UltraTouch™ can be **52 seconds faster** per blood culture bottle. This can make a significant difference on smaller and difficult veins.
- For the recommended total collection volume of 40 to 60mL of blood, there can be a **saving of ~3.5 to 5.2 minutes** per blood collection.



# We can help you implement best practices in the preanalytical phase of blood culture sample collection

At BD we offer valuable support with BD Professional Services when driving best practice to ensure high quality sample collection. We assess your sample management workflow to ensure all factors that contribute to sample quality are controlled and monitored. Please reach out to a local representative for a general consultation and a free Quick Reference Guide for blood culture sample collection.

BD Vacutainer® UltraTouch™ Push Button Blood Collection Sets:

| Cat no. | Description  | Shelf pack / case |
|---------|--|-------------------|
| 368689  | 21G / 0.8mm x 19mm (0.75") needle with 305mm (12") tubing with pre-attached holder | 20/100            |
| 368688  | 23G / 0.6mm x 19mm (0.75") needle with 305mm (12") tubing with pre-attached holder | 20/100            |
| 368687  | 25G / 0.5mm x 19mm (0.75") needle with 305mm (12") tubing with pre-attached holder | 20/100            |
| 367365  | 21G / 0.8mm x 19mm (0.75") needle with 305mm (12") tubing and luer adapter         | 50/200            |
| 367364  | 23G / 0.6mm x 19mm (0.75") needle with 305mm (12") tubing and luer adapter         | 50/200            |
| 367363  | 25G / 0.5mm x 19mm (0.75") needle with 305mm (12") tubing and luer adapter         | 50/200            |
| 364815  | BD Vacutainer® One Use Holder  | 250/1,000         |

BD recommends for all needles and blood collections sets without a pre-attached holder that a BD Vacutainer® One-Use Holder be used

## Optimise your blood culture sample collection and diagnostic process further with BD Professional Services, BD BACTEC™, and BD Synapsys™

Learn more about BD's commitment to Patient Safety  
[eu.bd.com/patient-safety](http://eu.bd.com/patient-safety)



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2797 0050 CE 2797 applies to BACTEC™. CE 0050 applies to BD UltraTouch™

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