



**FACULTY GUIDE TO THE  
STUDENT BP MEASUREMENT  
ESSENTIAL SERIES**

# Contents

1. AMA's 'Student BP Measurement Essential Series' overview
2. Why is the AMA student BP series helpful?
3. Description of the modules in the Student BP Measurement Essential Series
4. When should the modules be delivered?
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6. Best practices and tips for the Student BP Measurement Essential Series

# 1. AMA'S 'STUDENT BP MEASUREMENT ESSENTIAL SERIES' OVERVIEW



## BP MEASUREMENT ESSENTIALS: STUDENT EDITION

Covers information about importance of in-office BP measurement, devices, preparation, positioning, and procedure for in-office BP measurement and basics of SMBP  
Includes practice exercises for in-office BP measurement

 ≈35 mins

 Novice



## BP MEASUREMENT REFRESHER: STUDENT EDITION

Covers the preparation, positioning, and procedure for in-office BP measurement from the Essentials module and acts as a refresher

 ≈10 mins

 Intermediate



## SELF-MEASURED BLOOD PRESSURE (SMBP) ESSENTIALS: STUDENT EDITION

Covers all the necessary information to train patients in conducting SMBP from their homes

 ≈15 mins

 Novice



## MEASURING BP IN REAL-WORLD SETTINGS: STUDENT EDITION

Covers tips and tricks on how to work with common real-world challenges during in-office BP measurement

 ≈12 mins

 Intermediate



## PRACTICE EXERCISES FOR MEASURING BP: STUDENT EDITION

Provides practice exercise for in-office BP measurement preparation, positioning, and procedure

 ≈15 mins

 Advanced

## 2. WHY IS THE STUDENT BP MEASUREMENT ESSENTIAL SERIES HELPFUL?

BP measurement is the most-commonly performed procedure in clinical practice.

Accurate BP measurement is critical to patient care and requires mastering several skills.

A recent [study](#) highlights the requirement for additional training as medical students do not attain mastery of the skills required to measure BP accurately.

*“159 students from around the country were assessed on 11 BP measurement skills – only one student was proficient on all 11 skills.”*

**JCH** THE JOURNAL OF CLINICAL HYPERTENSION  
ORIGINAL PAPER | Open Access | CC BY-NC-ND

### Medical students and measuring blood pressure: Results from the American Medical Association Blood Pressure Check Challenge

Michael K. Rakotz MD, Raymond R. Townsend MD, Jianing Yang MS, Bruce S. Alpert MD, Kathleen A. Heneghan MPH, Matthew Wynia MD, MPH, Gregory D. Wozniak PhD

First published: 28 April 2017 | <https://doi.org/10.1111/jch.13018> | Citations: 40

SECTIONS PDF TOOLS SHARE

#### Abstract

Blood pressure (BP) measurement is the most common procedure performed in clinical practice. Accurate BP measurement is critical if patient care is to be delivered with the highest quality, as stressed in published guidelines. Physician training in BP

Another [study](#) shows that the AMA series has produced showed pronounced improvements in patient preparation, positioning, and cuff sizing and placement among medical and nursing students.

*“After completing the first module in the series, more than 75% of students correctly identified proper technique for preparation, positioning, cuff selection, and BP measurement.”*

Listen

Rapid Communication

### Redesigning blood pressure measurement training in healthcare schools

Rupinder Hayer, Kate Kirley, Stavros Tsipras, Jon Allen, Darlene Hanson & Eric Johnson  
Article: 2098548 | Received 21 Mar 2022, Accepted 01 Jul 2022, Published online: 07 Jul 2022

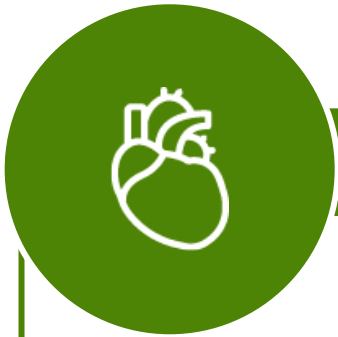
Download citation | <https://doi.org/10.1080/10872981.2022.2098548> | Check for updates

Full Article | Figures & data | References | Citations | Metrics | Licensing | Reprints & Permissions

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#### ABSTRACT

Blood pressure (BP) measurement is the most commonly performed procedure in clinical practice and requires mastering several skills. A prior study determined that medical school students failed to perform more than half of BP measurement skills correctly, demonstrating a need to redesign how BP measurement is taught. The American Medical Association set out to create and test a solution to address this BP measurement curricula gap. An eLearning series consisting of three modules was developed. The series was informed by evidence-based guidelines, includes content on self-measured blood pressure, is accessible to



## BP MEASUREMENT ESSENTIALS: STUDENT EDITION



≈35 mins



Novice

- The module supports existing efforts within health care schools to ensure all health care students are learning the latest evidence-based techniques as their peers and future care team members.
- The first two sections cover the importance of BP, basic terminology and equipment and practices required for in-office measurement.
- The third section covers the topic of Self-Measured Blood Pressure (SMBP).



7 STEPS TO MEASURE BP

MENU | RESOURCES | HELP | GLOSSARY | EXIT

PROGRESS 20%

STEP 1 | STEP 2 | STEP 3 | STEP 4 | STEP 5 | STEP 6 | STEP 7

Position the patient and determine which arm to use

Select the right cuff

Place the cuff correctly

Measure BP using the semi-automated, automated, or manual method

SPEED 1.5x

PREV NEXT



## BP MEASUREMENT ESSENTIALS: STUDENT EDITION



≈35 mins



Novice

### Learning objectives:



#### Section 1 Introduction

- Explain the importance of accurate blood pressure measurement and review the current epidemiology
- Define the basic concepts of blood pressure
- Identify the different equipment used to measure blood pressure and their key features



#### Section 2 Measuring in-office

- Demonstrate how to properly prepare and position a patient for BP measurement
- Perform BP measurements on a manual, semi-automated, and automated device
- Identify the different categories of blood pressure



#### Section 3 Self-measured blood pressure

- Define self-measured blood pressure, or SMBP
- Describe the importance of SMBP and how it can be used to diagnose and manage hypertension
- Identify how to choose the right equipment for SMBP measurements
- Explain how to perform self-measured blood pressure and document the measurements



## BP MEASUREMENT REFRESHER: STUDENT EDITION



≈10 mins




Intermediate




- The module is a condensed version of BP Measurement Essentials: Student Edition and is designed to follow it as an ongoing re-training for all health care students.
- It supports existing training efforts as students begin clinical experiences and throughout their career.

RECAP OF KEYS TO ACCURATE MEASUREMENTS

MENU | RESOURCES | HELP | GLOSSARY | EXIT

PROGRESS 20%



SPEED 1.5x

PREV NEXT



## BP MEASUREMENT REFRESHER: STUDENT EDITION



≈10 mins



Intermediate

### Learning objectives:



#### Objective 1

Prepare and position a patient for blood pressure (BP) measurement



#### Objective 2

Perform BP measurements on manual, semi automated and automated device



#### Objective 3

Identify the different categories BP





## SELF-MEASURED BLOOD PRESSURE ESSENTIALS: STUDENT EDITION



≈15 mins



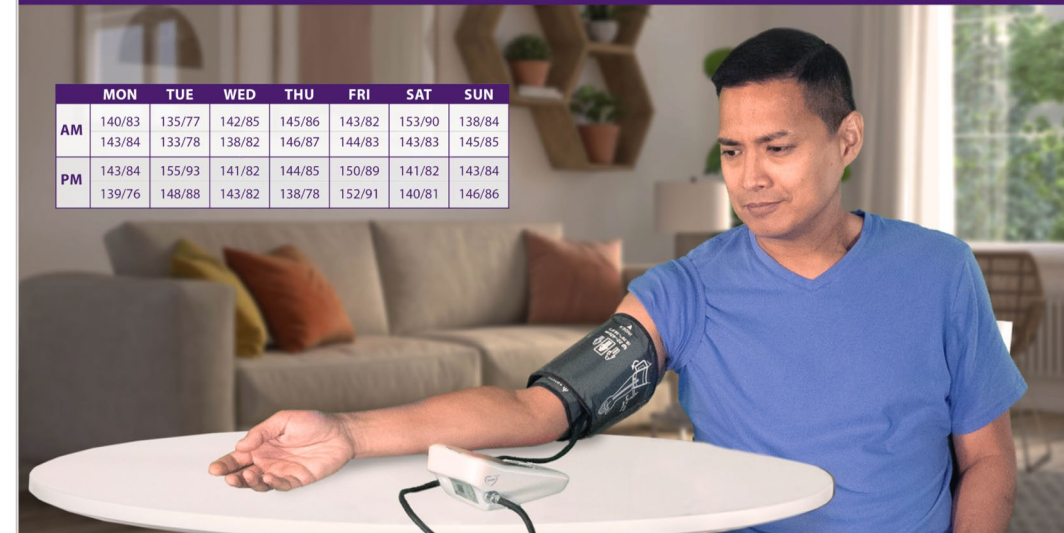
Novice

- The module informs health care students' understanding on how to properly partner with patients to measure BP – at home and in the office – to drive improved quality of care for patients with hypertension, during training and beyond.

WHAT IS SMBP AND WHY IS IT IMPORTANT?

MENU | RESOURCES | HELP | GLOSSARY | EXIT  
PROGRESS 20%

	MON	TUE	WED	THU	FRI	SAT	SUN
AM	140/83 143/84	135/77 133/78	142/85 138/82	145/86 146/87	143/82 144/83	153/90 143/83	138/84 145/85
PM	143/84 139/76	155/93 148/88	141/82 143/82	144/85 138/78	150/89 152/91	141/82 140/81	143/84 146/86



SPEED 1.5x  
PREV NEXT



## SELF-MEASURED BLOOD PRESSURE ESSENTIALS: STUDENT EDITION



≈15 mins



Novice

### Learning objectives:



#### Objective 1

Define self-measured blood pressure (SMBP)



#### Objective 2

Describe the importance of SMBP



#### Objective 3

Identify how to choose the right equipment for SMBP measurements



#### Objective 4

Explain how to perform SMBP and document the measurements



#### Objective 5

Identify the resources you can use with patient to help them measure BP correctly



## MEASURING BP IN REAL-WORLD SETTINGS: STUDENT EDITION



≈12 mins




Intermediate

- The module offers health care students strategies and best-practices for navigating common, real-world challenges of measuring accurate BP in health care settings.
- It provides practice in communicating with patients sensitively to ensure the accuracy of BP readings while providing high-quality patient care.

POSITIONING A PATIENT WITH INADEQUATE ROOM SETUP

MENU | RESOURCES | HELP | GLOSSARY | EXIT  
MODULE PROGRESS 24%



**Raise the back of the exam table** so their back is supported

**Support their arm with yours** so that their arm is resting on yours with their elbow in your hand.

**Use a foot stool to support their feet** and ask them to keep their legs uncrossed and feet flat on the stool.

SPEED 1.2x 1.5x  
◀ ▶ ⏪ ⏩ ⏴ ⏵ ⏶ ⏷ ⏸ ⏹ ⏺ ⏻ ⏼ ⏽ ⏾ ⏿

◀ PREV NEXT ▶



## MEASURING BP IN REAL-WORLD SETTINGS: STUDENT EDITION



≈12 mins



Intermediate

### Learning objectives:



#### Objective 1

Identify the different factors that can lead to inaccurate BP measurements



#### Objective 2

Describe how to properly prepare and position patient to measure their blood pressure



#### Objective 3

Explain how to manage situations when the ideal preparation and room set up for blood pressure is not possible



#### Objective 4

Identify ways to care patients sensitively when preparing and positioning them for BP measurements



## PRACTICE EXERCISES FOR MEASURING BP: STUDENT EDITION



≈15 mins



Advanced

- The module is designed to follow the Measuring BP in Real World Settings: Student Edition as ongoing re-training for health care students.
- It provides health care students with additional practice scenarios on implementing the key steps of measuring BP in real-world situations using various devices.

MEASURING BP IN LIMITED TIME

MENU | RESOURCES | HELP | GLOSSARY | EXIT

PROGRESS 20%

**Save the BP measurement for last** to give the patient a chance to rest.

A photograph showing a healthcare professional in a white coat and glasses measuring an elderly woman's blood pressure. The woman is smiling and looking at the professional. A blood pressure monitor is visible on the wall behind them.

SPEED 1.5x

PREV NEXT



## PRACTICE EXERCISES FOR MEASURING BP: STUDENT EDITION



≈15 mins



Advanced

### Learning objectives:



#### Objective 1

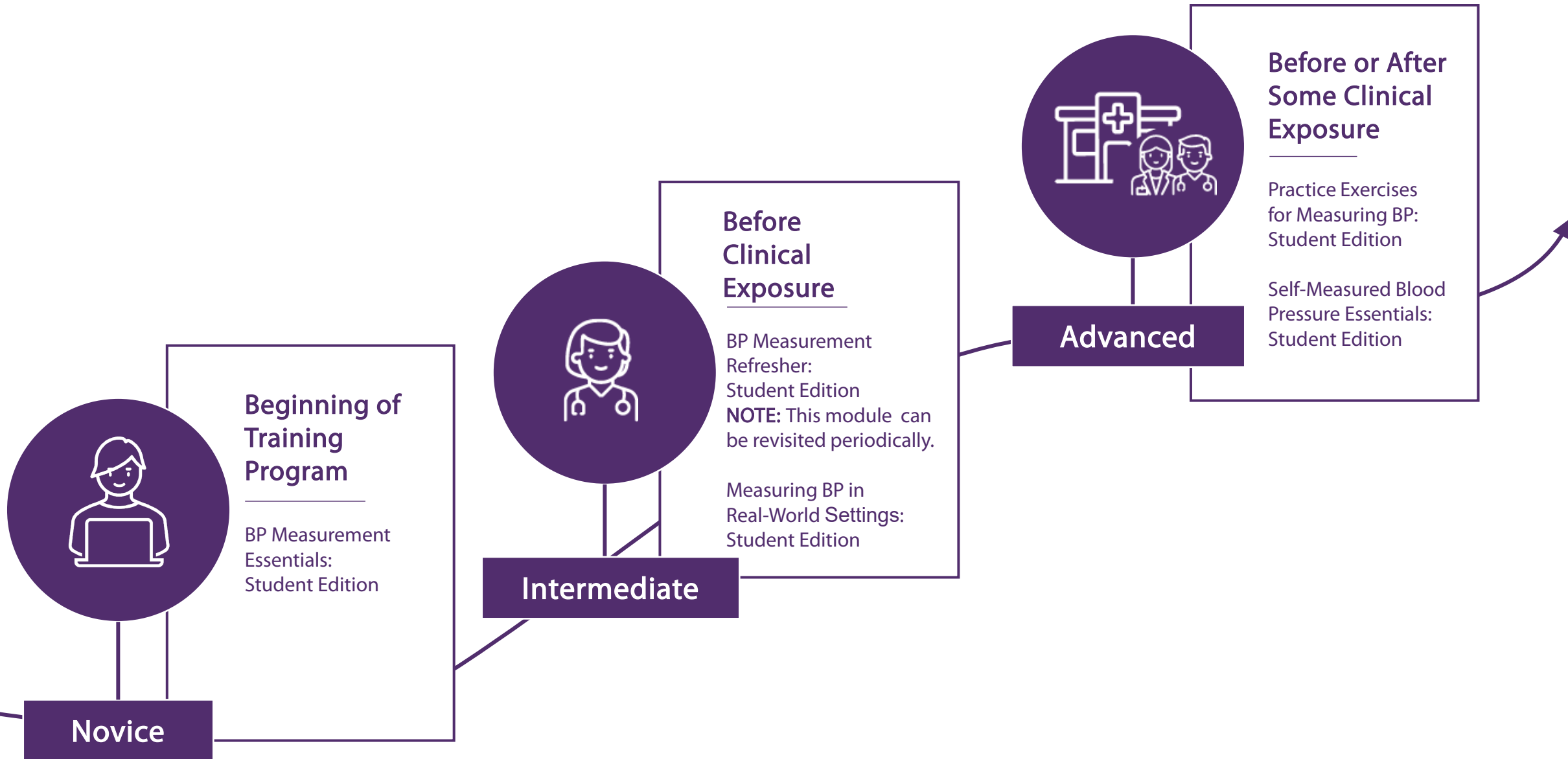
Identify tactics to deal with imperfect clinical settings for blood pressure measurements, which may occur in real-world situations



#### Objective 2

Practice the key steps to take blood pressure using different types of blood pressure devices

# 4. WHEN SHOULD THE MODULES BE DELIVERED?



## 5. HOW TO ACCESS THE STUDENT BP MEASUREMENT ESSENTIAL SERIES

The BP modules are **freely available** for all AMA members to access.

### Step 1

Go to the AMA CVD Prevention Education site on AMA's Ed Hub and log in <https://edhub.ama-assn.org/ama-cvd-prevention-education>

### Step 2

If you do not have an existing log in please create a new one using your email address (preferably edu email address).

### Step 3

Find modules under the 'Featured Activities' section or by selecting the 'Browse Activities' button on the home page.

The screenshot displays the 'Featured Activities' section of the AMA Ed Hub. It features three educational modules:

- BP Measurement Essentials: Student Edition**: A module for 1 Credit CME. The title is in large, bold, black font. Below it, the text reads 'Cardiovascular Disease (CVD) Prevention Education from the AMA'. To the right is a photograph of a female healthcare professional with curly hair looking at a laptop, with a male healthcare professional in a white lab coat standing next to her.
- BP Measurement Refresher: Student Edition**: A module for 0.5 Credit CME. The title is in bold, black font. Below it, the text reads 'Cardiovascular Disease (CVD) Prevention Education from the AMA'. To the right is a small photograph of a female healthcare professional in blue scrubs.
- Self-Measured Blood Pressure Essentials: Student Edition**: A module for 0.5 Credit CME. The title is in bold, black font. Below it, the text reads 'Cardiovascular Disease (CVD) Prevention Education from the AMA'. To the right is a small photograph of a female healthcare professional sitting at a desk.



- Assign modules as homework or pre-work to provide basic information and use classroom time to practice skills with real patients or even on practice case studies or [Objective Structured Clinical Examination \(OSCE\) cases](#).
- Use classroom time to focus on areas that students struggle with, such as patient preparation, cuff sizing and placement, and determining the correct number of readings.
- Encourage students to revisit modules as needed throughout their journey as a learner.
- Encourage students to use resources provided in the eLearnings as learning and job aids across personal and clinical spaces to serve as reminders for best practices, e.g., the ABC QUES pocket card.
- Leverage assessment cases and tools developed by the AMA grantees.

