Arranging for and Administering an NBME Web-Based Examination

This document provides a basic orientation to the main activities involved in administering NBME web-based exams offered as a service to medical schools, residency programs, or other organizations.

Staffing

At medical schools, the NBME Executive Chief Proctor (ECP) has the overall responsibility for ordering/planning the test administration and for assuring that related pre- and post-test activities have been completed. At residency programs or other organizations, these responsibilities may be carried out by a designated individual approved by the NBME.

The following additional staff must be appointed to support test administration activities:

- Chief Proctor (CP) to manage the specifics of the test administration
- Technical Support Coordinator (TechC) to assure that test administration system requirements are met

Responsibilities of the Chief Proctor

The exam must be administered in a secure, proctored setting. The CP will have access to a web-based *Chief Proctor Resource Site*, which houses all of the system applications and resources to support the test administration. The main duties of the CP are to:

- Become oriented to the NBME web-based proctoring software for exam delivery.
- Ensure that testing room physical arrangements for the computerized exam create a positive, secure working environment in which examinees can feel comfortable and do their best work.
- Conduct the exam in strict compliance with the procedures outlined in the Chief Proctor's Manual.
- Recruit one proctor for every 20 to 25 examinees expected in each testing room, plus additional staff to relieve proctors, if necessary.
- Start the test session, monitor the progress of examinees, end the test session, confirm the examinee group for scoring, and file an electronic Report of Test Administration.

On the *Chief Proctor Resource Site*, CPs can access the Chief Proctor's Manual and tutorials, administer a practice exam, and perform other necessary tasks associated with test administration cycle.

Responsibilities of the Technical Support Coordinator (TechC)

The TechC has the primary responsibility for assuring that all computers used for the test administration can deliver the exam securely and successfully.

Specific duties of the TechC are to:

- Set up a dedicated workstation/laptop in each testing room for use by the CP.
- Run an NBME exam compatibility check on at least one workstation or institutional laptop to be used for test administration.

- Have knowledge of the operating system (OS), virus checker, and browser version that reside on institutional workstations/laptops or examinee laptops.

- Be knowledgeable about the network architecture of the testing rooms.

- Verify that internet connection speed is adequate (minimum T1) for testing.

- Be available on the test day to resolve technical problems that may arise.

Standard NBME web-based testing system requirements are shown at the end of this document.

Ordering the Examination

The examinations are available to request through the online ordering system on the *NBME Services Portal (NSP)*. ECPs and those with parallel responsibilities at residency programs or other organizations will have access to this portal. The following information must be provided in the web-based exam order:

- Test date

- Expected number of examinees

- Number of any examinees who need extra testing time and the corresponding exam length (1.5x or 2x the standard time limit allocated for other examinees)

- Test session start and end times

- Names, telephone numbers and e-mail addresses for the CPs assigned to each testing room

Order submission triggers system e-mails to the CPs with the information they need to perform pre-test setup tasks. In order to allow adequate time to complete these tasks, the order should be placed *at least two weeks prior to the test date*. However, orders can be placed up to 2 calendar days before the test date. Please note that for the majority of NBME web-based tests, test administration is limited to a single day. The online ordering system has been configured to allow multiple testing days only for specific exams.

Administering the Examination

The pacing varies by exam. For examinations created by faculty through the Customized Assessment Services program, this is determined by the number of questions selected for the exam and the timing (72 or 90 seconds per question) chosen during the test construction process. For other NBME web-based exams, where the number of questions is fixed, the pacing is determined by the NBME, and averages 75 seconds per question.

Total test session time includes a 15-minute tutorial, the time allotment for responding to all questions, and, depending on the exam, an untimed post-test survey. There may also be structured "off the clock" breaks for specific exams.

After examinees have been admitted and seated, the CP starts the test session and communicates a start-up code to examinees for login purposes. The CP can monitor the progress of all examinees after they launch their exams, and end the test session when they finish. The *Chief Proctor's Manual* includes complete instructions on how to troubleshoot technical or other problems that may occur during the session.

Assigning Examinees to a Test Administration Roster

The NBME has developed a roster system to support the administration and scoring of its web-based

examinations. It is divided into two parts:

- a *master roster* for maintaining records for all examinees
- a *test administration roster* to be created prior to each test date

The roster system resides on the *NSP*. Those with access to the test administration roster function can populate the roster with the examinees scheduled to take a web-based exam up to the test date and before a test session is launched. This function is assigned by the User Account Administrator (UAA) and can be given to anyone with knowledge of the examinee group to be tested. Test administration delays may occur if this roster is not completed prior to the start of the test session.

NBME Test Administration Support

NBME staff will be available for test administration support on your test date(s) to respond to technical or procedural issues that may arise. NBME staff are available 24 hours a day, 7 days a week (exclusive of NBME holidays).

Score Reporting

After the CP ends a test session and files a Report of Test Administration, a Roster Confirmation will appear listing the examinees who tested in the session. The CP can exclude any records that would be invalid (e.g., if an examinee left due to illness) and then confirm the group to be submitted for scoring.

For most NBME web-based exams, the score report and related performance feedback are posted to the *NBME Services Portal* within 48-72 hours.   For other exams, such as those created using NBME Customized Assessment Services, the turnaround time could be longer.

Test Administration Resources

- Access online tutorials for the NBME web-based proctoring system on the ECP Resources tab of NSP.

- Contact nbmewebtest@nbme.org or 215-590-9298 with any questions about test administration activities.

Standard NBME Web-Based Testing Requirements

The standard NBME web-based testing requirements outlined below apply to exams delivered over both wired *and* wireless networks. Examinees may use personal laptops, either Macs or PCs, to take an exam.

Dedicated technical support staff with "Admin" privileges is required prior to and on the test day.		
Hardware	- Windows 7, Windows 8, Windows 10 1GHz processor or higher 17" screen or larger monitor (Desktops) 13" screen or larger (Laptops) - Minimum screen resolution of 1024x768 with 32-bit color setting - Turn off Windows updates or virus scanner updates to avoid interruptions during the exam. - Virtual machines and applications are not allowed. - iPads/tablets are not allowed.	- Mac OS X version v10.10, v10.11, v10.12, v10.13, v10.14 1GHz processor or higher 17" screen or larger monitor (Desktops) 13" screen or larger (Laptops) - Minimum screen resolution of 1024x768 with 32- bit color setting - Turn off Windows updates or virus scanner updates to avoid interruptions during the exam. - Virtual machines and applications are not allowed. - iPads/tablets are not allowed.
Browser	- Internet Explorer 9, 10, 11 - Safari 8 or higher - Google Chrome 61 or higher - Mozilla Firefox 54 or higher - Other browsers are not supported.	
Browser Settings	- JavaScript, CSS, Cookies and Pop-ups all enabled - If possible, disable toolbars, and Adware/Spyware programs to prevent slowness.	
Internet/Network Bandwidth	- Broadband (DSL, Cable or T1) 256Kbps or higher per workstation	
Network Security	Some level of encryption must be in place for wireless networks while the exam is in progress. SSL can be supplemented with another security protocol, such as but not limited to WEP, WPA or WPA2.	
Secure Browser	A Secure Browser is required to administer an NBME web-based exam; this application "locks down" the computer and prevents examinees from accessing other software applications during the exam. The Secure Browser will also detect any programs running on the examinee's computer that could compromise exam content. The Secure Browser application does not require configuration or administrator rights to install and is downloaded on test day when the examinee URL is provided by the Chief Proctor.	
Workstation Certification for School-owned Workstations*	The NBME provides a utility that checks the computer for web-based testing compatibility and launches a sample test. This utility must be run on each computer in the testing room prior to test day. Fourteen days prior to the test date, Chief Proctors will receive an email with a URL, a unique ticket number and instructions to run the Workstation Certification utility. Do not forward this email to examinees – it is for institutional use only.	
Workstation Certification for Examinee-owned Laptops	Examinees with personal laptops are required to run a separate Workstation Certification check. Prior to test day, forward the URL and Workstation Certification instructions from the 'Prior to Test Day' section of the Chief Proctor's Manual to examinees. Do not send examinees the unique ticket number used for the institutional version of the utility. Examinees with personal laptops should also be advised to arrive early to re-run Workstation Certification to detect any problems with the local firewall.	
Additional Workstations	Extra workstations/laptops should be available to replace computers that may malfunction during the test session. These spares should be enabled for wired and wireless LAN use.	

* Please review the Chief Proctor's Manual for additional details regarding Workstation Certification.

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