Development of a Novel Cloud-Based Clinical Credentialing and Training Checklist System to Improve Volunteer On-Boarding and Certification Tracking in a Student-Run Free Clinic

Rohini Nott[1]; Nina Patel[1]; Jennifer Hartmark-Hill, MD, FAAFP[2]

[1]Arizona State University, Tempe, Arizona, USA
[2]The University of Arizona College of Medicine-Phoenix, Phoenix, Arizona, USA

Corresponding Author: Rohini Nott; email: nrohini@asu.edu

Abstract

Interprofessional, student-run free clinics oversee many volunteers of different disciplines who may participate in multiple outreach programs. Effective organizational volunteer management is crucial to achievement of mission goals and volunteer retention. Students from different organizational and educational backgrounds may be required to complete a number of unique certifications and trainings in order to volunteer in a clinical role. Clear and concise dissemination of requirements to both new and returning volunteers must be performed in a structured and replicable way to ensure organizational consistency and accuracy. The Student Health Outreach for Wellness (SHOW) Community Initiative serves vulnerable populations in a variety of clinical settings, including outreaches to people experiencing homelessness and those in treatment for substance abuse disorders. Implementation of the cloud-based clinical checklist and volunteer roster has enabled our student-run free clinic to more effectively communicate both within our volunteer management team and with clinical volunteers we oversee. This article describes how a novel volunteer management workflow strategy was employed to improve volunteer compliance and communication between clinical staff and volunteers and volunteer onboarding efficiency, as well as how other student-run free clinics can implement similar strategic workflow practices to optimize their volunteer management efficiency and efficacy.

Introduction

Student-run free clinics provide important access to care and services that might not otherwise be available or affordable to underserved populations but may also face challenges inherent to volunteer organizations with high levels of student turnover due to academic progression, changing schedules, and other responsibilities.[4] The Student Health Outreach for Wellness (SHOW) Community Initiative provides integrated primary care in Maricopa County, Arizona, as a student-run free clinic with multiple outreach arms to vulnerable populations, including patients experiencing homelessness and those seeking treatment for substance abuse.[1] The

interprofessional education and practice mission of the SHOW Community Initiative is to foster a learning laboratory with measurable outcomes in workforce development and research.

SHOW is supported by clinical and committee volunteers, who are students and faculty with a wide range of healthcare backgrounds and expertise. Moreover, SHOW is an inter-institutional collaboration, and student leaders oversee undergraduate and graduate volunteers from three state universities (Arizona State University, Northern Arizona University, and University of Arizona) and volunteers from sixteen unique health professions (and growing). The Arizona Board of Regents is the governing body of Arizona's public university system and it oversees Arizona's three

state universities. SHOW's emphasis on integrated physical and behavioral care, delivered by in interprofessional team, is key to its success in providing holistic care to vulnerable populations with complex health and social needs. Management of this interprofessional, dynamic team-based volunteer entity necessitates effective communication of clear structure, processes, and procedures to ensure that students from every discipline are in compliance with state and federal regulations.

A number of complementary committees have been created to support this work. SHOW's Volunteer and Human Resources (V&HR) Committee performs auditing of all volunteers prior to each clinical volunteer shift, which is crucial as SHOW oversees approximately 80 committee volunteers and 125 clinical volunteers per semester. Because the V&HR committee is comprised of a range of five to ten undergraduate members at a given time, it is essential that all functions and tasks be standardized, scheduled, and efficient. Standard operating procedures (SOPs) were developed for all V&HR onboarding and auditing protocols to ensure this. These SOPs are accessible to all SHOW committee volunteers through shared cloud-based folders in SHOW's Google Drive.

A number of quality improvement measures have been implemented since the inception of the V&HR Committee and the opening of the clinic in 2015 that have successfully addressed challenges frequently encountered by student-run free clinics, such as high student and preceptor turnover,[5] as well as long patient wait times and limitations in variety of services provided.[3] Specifically, tracking and auditing procedures were implemented at regular intervals to ensure that certification requirements for all sixteen health professions and disciplines are met and maintained, for both incoming and returning volunteers.

Methods

Between November 2016 and February 2017, a new auditing cloud-based certification protocol was implemented by V&HR student leadership. This included a comprehensive volunteer roster—stored in Google Drive folders—that allows multiple V&HR members to jointly enter data to onboard new volunteers and update certification records. Documentation utilizes cloud-based spreadsheets with pre-set requirement categories by discipline in order to promote greater transparency and bi-directional information exchange regarding expectations for certification requirements. Student volunteers are provided access to the same documents as the student leaders who perform audits and request credentialing as needed. Figure 1 depicts the V&HR committee's management role as pertaining to the many moving parts in SHOW.

The certification checklist provides a comprehensive overview of the volunteer onboarding workflow and the specific certification requirements for volunteers from each discipline (Figure 2). The clinical certification and training checklist in Figure 2 includes a list of the accepted student volunteers and percentage of onboarding/maintenance of certification tasks completed; the legend details each volunteer's discipline, which alters the required certifications and trainings that the volunteer must complete. Table 1 describes SHOW's clinical volunteer requirements. Table 2 includes all programs that serve with SHOW and the specific certifications and training modules that each volunteer from that discipline must complete prior to being allowed to serve as a clinical volunteer.

V&HR member auditors are assigned as "point people" for specific volunteer disciplines. Using the checklist, auditors oversee the onboarding process for their volunteers and are responsible for knowing and tracking their relevant certifications and other requirements. Should volunteers have any questions or points of clarification, they are able to reach out to their designated auditor, who is knowledgeable regarding the requirements of their specific discipline. Furthermore, because the auditor is only assigned to one specific discipline, this optimizes the efficiency and reliability of communication, as they are only communicating one set of requirements.

Auditors are also responsible for maintaining current volunteer information, by inputting volunteer contact information, discipline, and upcoming shift dates into the clinical roster (Appendix A, Figure A1). The "Master Roster" includes a tab of all volunteer information, as well as more

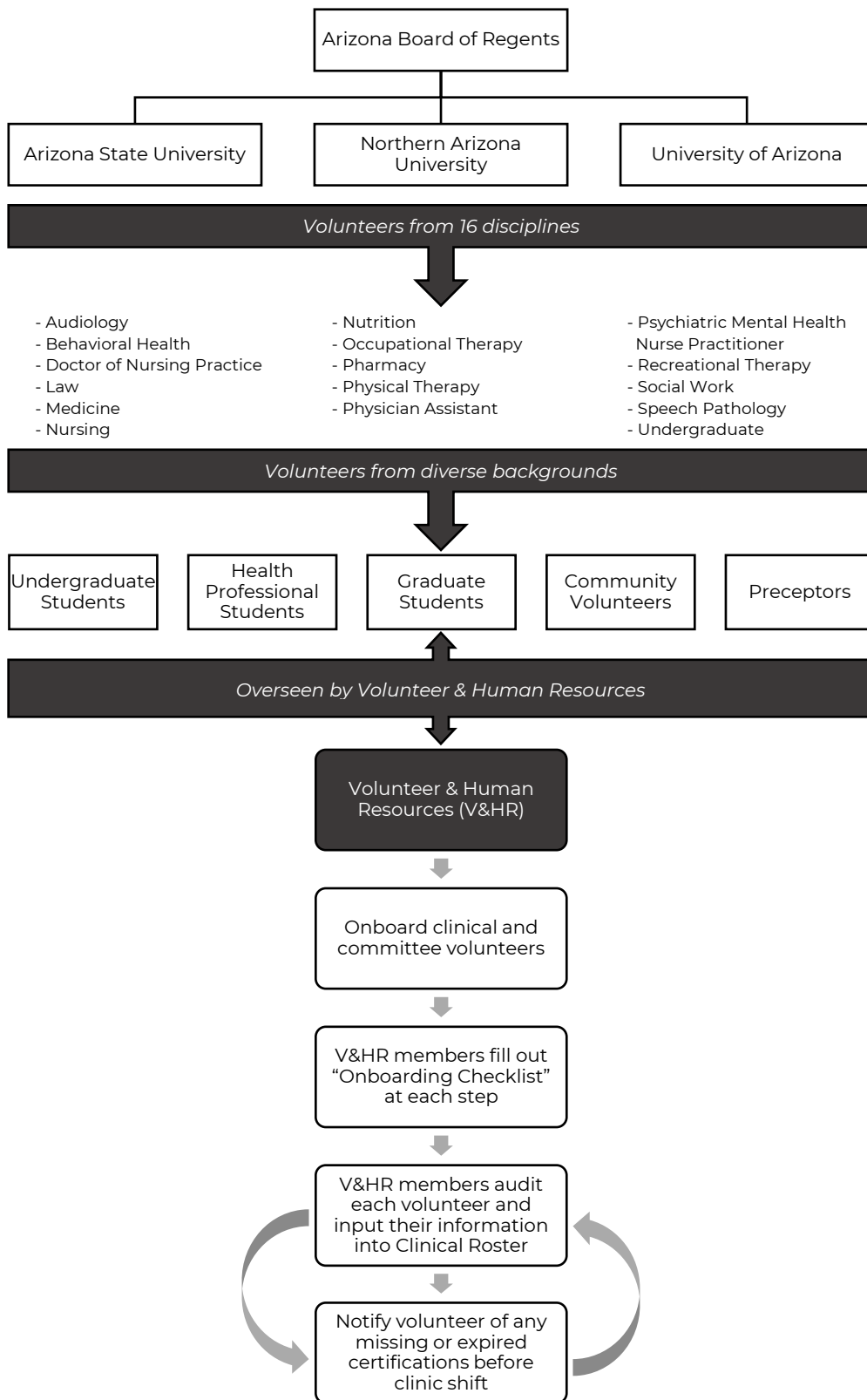***Figure 1.*** Volunteer and human resources' management role in SHOW

Figure 2. Clinical certification and training checklist

specific rosters for individual shifts. The roster keeps an updated record of completed certifications, their expiration dates, and is color-coded to distinguish between volunteers with active and inactive certifications. By compiling all of the volunteer data (e.g., certification expiration dates, volunteer shifts, contact information) prior to volunteers entering the clinic, evidence for completion of certifications is readily available to reference (e.g., in the event of a state inspection) (Appendix A, Figure A2). This process ensures up-to-date records that remain compliant with relevant regulations in order to protect our volunteers, patients, and clinic.

In addition to initial audits for compliance, an ongoing auditing process is an essential function of volunteer management and must be performed prior to each clinical shift. Figure 3 depicts a detailed flowchart of the auditing process that occurs during active clinical rotations.

Conclusions

The SHOW Initiative has implemented a cloud-based clinical certification checklist and roster in order to significantly improve transparency of training and certification requirements for both clinical volunteers and V&HR auditors, alleviating the unknowns regarding timelines and volunteer questions and concerns regarding their training completion status. The certification checklist ensures 1) that auditors maintained communicative transparency with volunteers regarding their certification requirements and 2) that the roster effectively managed volunteer certification record requirements. Being cloud-based, documents are accessible to both clinic leadership and auditors. Prior to assigning auditors to volunteers from specific disciplines, volunteers had no consistent point of contact if they had questions regarding their onboarding requirements for our student-run clinic. Assigning designated auditors as "point people" (process owners) greatly improved volunteer compliance and communication between staff and volunteers as reported by clinic managers, clinical volunteers, and committee volunteers. Planning for a study to further quantify impact on volunteer satisfaction and team management efficacy is underway.

Feedback from both volunteers and clinic staff has supported the benefit of having clear process ownership in place. Implementation of the certification checklist and roster into the auditing workflow has optimized volunteer onboarding efficiency, increased knowledge of certification requirements for SHOW's wide range of disci-

Table 1. SHOW's clinical volunteer requirements

Requirement	Description	Completion Measure	Renewal Requirement
Orientation	Two-hour long SHOW training, which orients clinical volunteers to the clinic set-up and flow, as well as to the structure of SHOW and the roles which operate within the organization.	Volunteers demonstrate proficiency through completion of the accompanying 20 question quiz. To pass, students must score 80% or higher.	Annual
Health Insurance Portability and Accountability Act of 1996 (HIPAA)	Informational PowerPoint training created by SHOW managers.	Volunteers demonstrate proficiency through completion of the accompanying 20 question quiz. To pass, students must score 80% or higher.	Annual
Bloodborne Pathogens (BBP)	Online module done through student's program or university.	For completion of BBP training, because we operate with the support of students from three different universities; we accept any accredited Blood Borne Pathogens quiz with a score of 80% of higher.	Annual
Clinical Laboratory Improvement Amendments (CLIA)	Informational PowerPoint training created by SHOW managers.	Volunteers demonstrate proficiency through completion of the accompanying 20 question quiz. To pass, students must score 80% or higher.	Annual
Fire Safety	Official walkthrough of the clinical environment with a member of the SHOW Policy & Procedures' team under the Clinical Operations committee. During orientation, clinical volunteers receive a fire safety training.	Volunteers demonstrate proficiency through completion of the accompanying 15 question quiz. To pass, student must score 80% or higher.	Annual
Collaborative Institutional Training Initiative (CITI) Human Subjects Research Training	Training done through official CITI website (www.citiprogram.org)	Completion and proficiency are assessed through the online CITI module.	Based on official CITI recommendation (i.e., every 4 years).
Basic Life Support/cardiopulmonary resuscitation training (BLS/CPR)	Student clinical volunteers undergo any accredited BLS/CPR program.	Completion of any accredited BLS/CPR program is accepted.	Based on BLS/CPR program recommendation (e.g., every 2 years).
Vaccinations	Student clinical volunteers are required to provide proof of the following: Measles, Mumps, & Rubella, Hepatitis B (SHOW offers a waiver), Influenza (highly recommended), and Tuberculosis (TB) test.	Completion is assessed after student provides documentation.	The TB test must be completed annually.

Table 2. Program-specific requirements for students to serve as clinical volunteers

	Certification and Training Modules							
Program	SHOW Orientation	HIPAA	BBP	CLIA	Fire Safety	CITI	BLS/CPR	Vaccinations
Group 1	✓	✓	✓		✓		✓	✓
Group 2	✓	✓	✓	✓	✓		✓	✓
Group 3	✓	✓	✓		✓	✓	✓	✓

Group 1 programs: Audiology, Behavioral Health, Law, Occupational Therapy, Pharmacy, Physical Therapy, Recreational Therapy, Speech & Language Pathology. Group 2 programs: Doctor of Nursing Practice, Medicine, Nursing, Physician Assistant, Psychiatric Mental Health Nurse Practitioner. Group 3 programs: Social Work and Undergraduate.

HIPAA: Health Insurance Portability and Accountability Act; BBP: Bloodborne Pathogens; CLIA: Clinical Laboratory Improvement Amendments; CITI: Collaborative Institutional Training Initiative Human Subjects Research Training; BLS/CPR: Basic Life Support/cardiopulmonary resuscitation

plines, enabled an accessible and thorough volunteer records database, and reduced uncertainty and delays in onboarding. Furthermore, as the certification checklist and roster are cloud-based, this promotes greater accessibility to clinic leadership and auditors; in the event of a state or federal inspection, this ensures that there will be complete disclosure for management or leadership to demonstrate compliance. Given our completion of the first two phases of the Plan-Do-Study-Act (PDSA) Model, next steps will include measuring and learning from outcomes related to efficient volunteer integration and retention.[2]

Student-run free clinics that utilize this system will be able to provide reports on volunteer involvement and workforce outcomes in a manner that invites input and opportunities for collaboration, further enhancing the PDSA process. Moreover, for student-run free clinics looking to optimize their volunteer management workflow and clinical compliance, implementation of the Clinical Credentialing and Training Checklist or a similar system could be greatly beneficial. A stepwise approach for clinics wishing to integrate this process can be found in Appendix B. Undeniably, this system is relatively low-effort with high-yield, as it provides the structure to already existing and performed volunteer management and auditing functions.

Future research within SHOW will focus on how this approach might promote sustainability of both SRFC infrastructure and relationships with community partners and funders.

Disclosures

The authors have no conflicts of interest to disclose.

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Figure 3. Clinical volunteer onboarding process during active clinical rotations
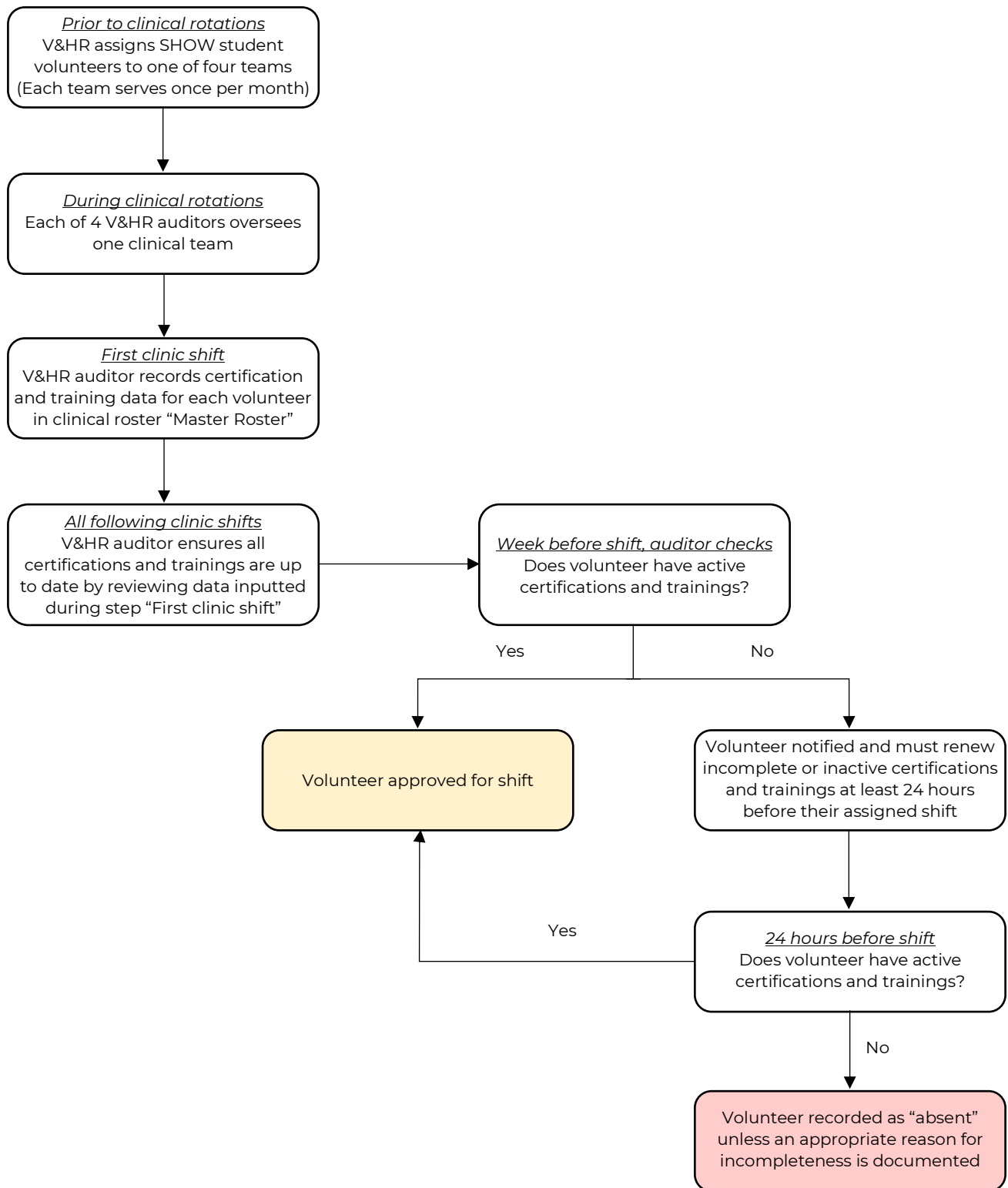
Appendix A. Volunteer records and training spreadsheets

Figure A1. Clinical roster with volunteer information, certification records/renewal information, discipline and position within clinic, attendance information, etc.

Figure A2. Clinical certification and training information

Appendix B. A stepwise approach for development and implementation of Clinical Credentialing and Training Checklist or a similar system

- ❏ Develop a clinical credentialing spreadsheet, similar to the one depicted in Figure 2. This spreadsheet should be utilized during the onboarding of all clinical volunteers.

    a. The spreadsheet should include a checklist of onboarding "to-dos" for those performing volunteer management.

    b. The volunteer management team should discuss how to appropriately assign auditors to clinical volunteers. For the SHOW V&HR committee, auditors were assigned to audit students during specific weeks of the month, based on personal schedules.

- ❏ Auditing should ideally be performed prior to each clinical shift. Therefore, depending on the frequency of clinical shifts, auditors should rotate.

    a. For SHOW, each V&HR auditor had to audit once every month.

- ❏ Once auditors are identified and made point people for specific disciplines, their designation should be recorded on the checklist for clarity.

- ❏ Clinical onboarding can begin. As auditors inform each volunteer of their required certifications and trainings, auditors should utilize the clinical credentialing spreadsheet to record which onboarding tasks have been performed and completed.

- ❏ Once clinical volunteers have been confirmed, auditors should record volunteer information on a master roster, including the volunteer's full name, contact information, shift dates, and certification and training expiry dates.

Auditors should follow the procedure described in Figure 3 to ensure all volunteers remain compliant with all required certifications and trainings.