

NCQAC and PQAC Task Force Recommendations

June 8, 2015

Introduction: In January of 2015 a joint task force of the Nursing Care Quality Assurance Commission and the Pharmacy Quality Assurance Commission was formed to look at several issues involving the use of automated drug distribution devices (ADDDs) by nursing students. A pharmacy hospital director requested technical assistance regarding access to ADDDs by unlicensed health personnel, including nursing students. Some hospitals began enforcing pharmacy rule WAC 246-872-030(5)(a). In response, nursing education programs, clinical consortiums, and healthcare providers raised concerns about nursing students not being allowed to access ADDDs for medication administration as part of their training.

Specifically, Pharmacy Commission rule ‘Pharmacy Automated Drug Distribution Devices’ WAC 246-872-030(5)(a) states: “Each facility using drug distribution devices must designate a registered pharmacist responsible for the oversight of the use of these devices. The responsibilities of this pharmacist are to: (5) Ensure the security of medications in automated drug distribution devices by: (a) Limiting access to licensed health personnel consistent with the patient care services identified within their scope of practice...”

Conversely, Nursing Commission statute ‘Construction’ RCW 18.79.240(1)(c)(2)(c) states: “(1) In the context of the definition of registered nursing practice and advanced registered nursing practice, this chapter shall not be construed as...: (c) Prohibiting the practice of nursing by students enrolled in approved schools as may be incidental to their course of study or prohibiting the students from working as nursing technicians;... (2) In the context of the definition of licensed practical nursing practice, this chapter shall not be construed as: (c) Prohibiting the practice of practical nursing by students enrolled in approved schools as may be incidental to their course of study or prohibiting the students from working as nursing assistants.

The task force is comprised of equal representation from both commissions. Members include:

- Nursing Commission, Teri Trillo, Jeannie Eyler, Barbara Gumprecht, and Mindy Schaffner;
- Pharmacy Commission: Tim Lynch, Sepi Soleimanpour, Cathy Williams and Al Linggi.

The task force met on January 16, February 12, March 5, 2015, May 15, June 1, and June 8, 2015.

Purpose Statement: The task force is dedicated to the evaluation and analysis of patient safety measures used in nursing and pharmacy for accessing automated drug distribution systems. The task force will develop recommendations for actions by the NCQAC and PQAC using evidence based practice standards. Specifically, the task force will develop best practices to use for nursing students accessing automated drug distribution systems in the course of their education.

The task force will also make any recommendations for regulatory reform necessary to accommodate nursing student access to automated drug dispensing devices.

Progress Report: (Based on objectives stated in the Charter Statement)

1. Complete a review of the literature on safe practices associated with automated drug distribution systems by nursing students. The task force uses the results of the literature review to guide the recommendations.
 - a. A review of the nursing and pharmacy literature was completed by two members.
 - b. The results of the review identified very few articles on nursing students and use of ADDDs.
 - c. Nursing review identified best practices in accessing and utilizing ADDDs.
 - d. Pharmacy review focused on safe pharmacy practice using ADDDs. .
2. Consultation with nursing and pharmacy stakeholders in Washington State related to safe practices associated with the use of ADDDs by nursing students.
 - a. The members developed four questions to send to nursing program directors, clinical consortia member, hospital and long term care pharmacies that specifically gather information on current and best practices on accessing ADDDs. The results of the nursing survey can be found in Appendix A. The results of the pharmacy survey can be found in Appendix B.
3. Collects laws, rules, policies, procedures, professional and educational standards associated with the use of automated drug distribution systems by nursing students.

a. The following information was collected from 36 Boards of Nursing in other states.

1. Are there any state regulations or Board of Nursing issued guidelines regulating student nurse administration of patient medications?			
		Response Count	Response Percent
yes		2	6%
no		34	94%
Total Respondents		36	100%

3. Are there any state regulations or Board of Nursing issued guidelines regulating student nurse access and administration of patient medications through an automated dispensing system (e.g. Pyxis)?			
		Response Count	Response Percent
yes		0	0%
no		36	100%
Total Respondents		36	100%

b. On February 3rd, the same two questions were sent to all state boards of pharmacy through National Association of Boards of Pharmacy (NABP) as a request for information from Washington. To date (March 17, 2015), 8 states had replied. Five of the states had no regulations specifically restricting nursing students from accessing ADDDs. A sixth state specified in regulation that access to ADDDs is limited to licensed health care personnel. A seventh state had regulations that allowed nursing students to access ADDDs under the supervision of a registered nurse or physician. Regulations in the eighth state are interpreted to allow a nursing student access to an automated dispensing device if consistent with the required pharmacist-in-charge procedures to assuring maintenance of the proper storage and dispensing of drugs used throughout the hospital and if a specific access code is used to identify the nursing student.

Recommendations:

1. Allow nursing student access to all medication distribution systems, including ADDDs.
 - (a). Best practice identifies that students need to have orientation and practice experiences demonstrating competency of skills prior to utilizing these medication distribution systems by the nursing education program, and that healthcare facilities or pharmacies provide adequate training for students accessing ADDDs.
2. Nursing education programs, healthcare facilities and pharmacies must have written policies and procedures for the following:
 - (a). Access and administration of medications by nursing students based on student competencies,
 - (b). Orientation of students and faculty to policies and procedures related to medication administration and distribution systems, and
 - (c). Reporting of student medication errors, near misses and alleged diversion to the responsible commission.
3. Notification of all NCQAC and PQAC stakeholders of commissions' actions for recommendations that nursing students access ADDD devices in addition to quality parameters for policies, procedures, student/faculty orientation and reporting of significant events.
4. Current nursing and pharmacy rules need to be amended:
 - (a). Nursing rules need to include the requirement that nursing education programs must:
 - (i) Report all student medication events, near misses and alleged diversion to Nursing Commission, and
 - (ii) Have policies and procedures that address the following:
 - A. Access and administration of medications by nursing students based on student competencies,
 - B. Orientation of students and faculty to policies and procedures related to medication administration and distribution systems, and
 - C. Reporting and evaluating student medication errors, near misses and alleged diversion.
 - (b). Pharmacy rules need to be amended to reference RCW 18.79.240 (1)(c) and (2)(c) and nursing student practice experiences that are incidental to the students' course of study.

Appendix A

Washington State Nursing Commission Survey to Stakeholder Group

Date: April 27, 2015

Purpose: The Washington State Nursing Care Quality Assurance Commission & Pharmacy Quality Assurance Commission requested feedback on best practices for nursing students in the use of automated drug dispensing devices (ADDDs).

Washington State restricts automated drug dispensing systems access to licensed healthcare professionals. Nursing Commission statute identifies that nursing students may perform licensed nurse skills as may be incidental to their course of study in a commission approved program. There has been concern expressed that limiting access for nursing students to ADDDs would be detrimental to the learning process and may adversely affect patient safety.

Methods: Invitations for feedback were requested via email March 24 from nursing education programs and consortium members. Respondents were given two weeks to send narrative responses to the questions outlined below.

Results:

There were twenty-two responses received representing 9 community colleges and 6 university nursing programs as well as 7 hospital or health system responses. Respondents indicated their input was elicited from a variety of individuals who have experiences in supervision of students administering medications. The following is an overview of themes identified by compiling the responses. A table for each of the four questions outlines the number of responses for each theme identified by question. Finally there is a summary of results comparing responses from community colleges, universities, and hospitals.

Table 1 Assuring Patient Safety

How does your organization or educational institution assure safe access by nursing students to Automated Drug Dispensing Devices (ADDDs) and safe medication administration by these students?	
Direct supervision by faculty or RN preceptor	17
Skills training and/or simulation prior to clinical	19
Progressive independence in medication pass	9
Students specific access codes	5
Special procedures for high risk meds	4

The most common processes described to assure safe access to ADDDs and safe medication administration were; direct supervision by faculty or RN preceptor (17), skills training and/or simulation prior to clinical (19) and progressive independence and student accountability in medication pass (9). Student specific access codes (5) and special procedures for high risk meds (4) were described slightly less often. One hospital did not allow student access to ADDs and did not consider this a problem.

Universities and community colleges emphasis was equally on student learning, opportunity for practice, progressive independence and accountability, and faculty or preceptor supervision. Hospitals more likely emphasized the process for student access using access codes and limiting high risk medications. They also focused on simulation training and orientation activities to prepare students and graduates.

Table 2 Recommended Best Practices

What recommendations do you have for best practices in allowing nursing students to access ADDDs for medication administration?	
Direct supervision by faculty or RN preceptor	10
Skills training and/or simulation prior to clinical including	14
Hands on practice essential for optimum learning	9
Progressive independence in medication pass	5
Limited access to high risk drugs	2

Universities and community colleges described best practices as what they currently have in place to prepare students for medication administration. Respondents from hospitals focused on the skills training and orientation as well as processes such as limitation of high risk medications.

The most common best practices described for allowing student access to ADDDs are; direct supervision by faculty or RN preceptor (10), hands on practical for optimum learning (9), and skills training and/or simulation prior to clinical including standardized learning protocols i.e. the five rights (14). Although less often specifically mentioned progressive independence and student accountability in medication pass was also described as a best practice (5). Limited access to high risk drugs was described by two respondents as a possible best practice (2).

Table 3 Impacts on Organization

What impacts would your organization or educational institution experience if nursing students were not allowed access to ADDDs?	
Negatively affect learning overall i.e. critical thinking and organizational skills	10
Decreased patient safety during student experience and post graduation	10
Decreased work based experiences for students	5
Increased staff workload during student experience and increase orientation time new graduate employees	6

The impacts to organizations if nursing students did not have access to ADDDs are described as a negative effect on learning particularly in the areas of; critical thinking, and opportunity to practice organizational skills (10). Described as particularly problematic for learning was a decrease in work based experience (5). There was also a concern expressed about a potential negative impact on patient safety during the student experience and post-graduation (10). An additional organizational impact described was an increase staff workload during student experience and increase orientation time for new graduate employees (6).

Universities and community colleges described the impact of no access to the ADDDs for students in terms of their student learning and patient safety. The hospitals were more likely to emphasize increased workload for nurses working with students and increased orientation needs post-graduation as key impacts.

Table 4 Safety Concerns

What patient safety concerns, if any, do you have about allowing nursing students to access ADDDs for medication administration?	
Student access improves patient safety	8
No concerns with full student access and safety	8
Supervision by faculty or staff is essential for safety	5
Decrease in safety when student does not have access	2
Limitation of access to high risk meds such as narcotics is important	2

Universities, community college, and hospitals equally indicated student access to the ADDDs actually improves safety and they do not have any concerns about this practice. Two community

college respondents indicated a concern about a potential decrease in patient safety students would not have supervised practice experience prior to employment.

The most frequent response when asked about patient safety concerns was that there are no concerns with safety (8) and student access actually improves patient safety (8). Respondents indicated appropriate supervision is necessary to assure safety (5). There were (2) respondents who indicated patient safety would be decreased if students do not have access to ADDDs during their clinical work and (2) respondents indicated there should be limited access to high risk meds such as narcotics to assure safety.

Summary:

Organizations and educational institutions assure safe medication administration by students using Automated Drug Dispensing Devices (ADDDs) by a combination of laboratory simulation and faculty supervised practice in clinical sites. When it was not possible in the clinical site to have students access to the ADDD, more simulation using ADDD in the laboratory and student observation of faculty and staff using ADDDs were used by programs and organizations.

Respondents described best practice for safe medication administration must include students having full access to the ADDDs during their clinical practicum with faculty supervision. Although limitation of student access to high risk meds was identified in three of the four questions, on further analysis these responses referred to processes in nursing programs and organizations to assure safe medication administration, not necessarily specific to ADDDs.

The impacts to their organizations or educational institutions if nursing students were not allowed access to ADDDs were: increased load for nursing staff working with students and graduates needing more orientation prior to employment for medication administration. Overall an improvement in patient safety with the use of ADDDs was described particularly when used by students. However, there were concerns for patient safety if students do not have opportunities for supervised practice with ADDDs that are necessary for mastery of this skill.

Appendix B

Washington State Pharmacy Commission Survey Results

On March 24th, the Washington State Pharmacy Association (WSPA) was asked to disseminate the same 4 questions to members of their Health Systems Academy (100 individuals). In total 3 replies were received.

Replies per Question:

1. How does your organization or educational institution assure safe access by nursing students to Automated Drug Dispensing Devices (ADDDs) and safe medication administration by these students?
 - (Response #1) Nursing students currently do not have access to the ADDDs, however the instructors do. So the students must have either the instructor or a facility staff RN removes the meds for them. Instructor access is granted only for the duration of the experiential at the site and they have only the minimum necessary access. While, secure this does make it more difficult for the nurses to truly learn the medication process workflow since someone else must always pull their meds.
 - (Response #2) Nursing students are not allowed to access the ADDDs. Only the instructor can access for the student or the precepting nurse.
2. What recommendations do you have for best practices in allowing nursing students to access ADDDs for medication administration?
 - (Response #1) Best practice would be for the hospital to have a process through which all student and instructor names go through for provisioning access to the ADDD for only the duration of their experiential. It is possible to specify a termination date for the credentials in the ADDDs after which the access would no longer be functional.
 - (Response #1b) Another best practice would be to mandate a process by which the student nurses documentation of medication administration must be co-signed by their training staff nurse employed by the facility. This would ensure that the staff of the hospital are effectively acting as witnesses that everything the student removed was given/returned/wasted appropriately.
 - (Response #2) Do not allow them to access if discrepancies occur as they are often not easy to locate for fast resolution. [Discrepancies are tracked through the medication error

report system if and when they occur. We investigate the discrepancy and can only link it to the last person who checked out the medication from the Pyxis, and also who did or didn't chart the medication on our EHR system, meaning by the preceptor nurse.]

3. What impacts would your organization or educational institution experience if nursing students were not allowed access to ADDDs?
 - (Response #1) Currently we do not give students access and the impact is that it slows the medication process down because our staff must sign in for the students. Or an outside instructor signs in to the ADDD and removes the meds for patients they are less familiar than our internal staff, so to my mind this removes some of the safety associated with the RN role in the medication process.
 - (Response #2) A few extra minutes for a responsible person to check out medication for them.
4. What patient safety concerns, if any, do you have about allowing nursing students to access ADDDs for medication administration?
 - (Response #1) Provided they are supervised appropriately I have very few safety concerns with granting the students access.
 - (Response #2) Mostly concerns about diversion and record keeping and who does or doesn't have access.

A third person responded with the following:

I am the pharmacy manager and we have Pyxis med. stations. I am concerned about nursing students having access to the machines as I prefer them working 1:1 with RN's and watching not doing when it comes to removing medications. If they have their own access how could we confirm patient safety, compliance, and no-diversion? I like training staff but want to keep medications secure and patients safe.