

The First National Survey of Medication Aides

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A survey was developed with the goal of providing insight into the work settings, education, supervision, and work roles of medication aides. Results, which typically varied by work setting and regulatory agency, included 46% of respondents reporting that medication aide training needed to be more challenging and 8% reporting they had no supervision. Of medication aides who had supervision, 19% said their supervisor was never on site. When asked about work roles, 21% said they were not given a job description that addressed the scope of their duties, 33% needed more information about their authorized duties, and 21% thought some of the tasks that they performed were beyond their scope. In terms of job duties, 29% indicated they were allowed to administer injectable medications, 80% were allowed to administer the first dose of a new medication, 67% were allowed to administer prn medication without an assessment by a licensed nurse, 49% were allowed to administer medications when the patient's condition was unstable or had changing nursing needs, and 59% were allowed to crush medications without authorization by a licensed nurse. Study implications are discussed.

A survey was developed with the goal of providing insight into the following topics from the perspective of medication aides: demographics and work setting, training and education, supervision, communication, authorized duties, and medication administration. The data obtained can help regulators make decisions about the implementation or development of safe, effective programs for medication aides.

Survey items were derived by reviewing the medication aide literature and regulations. The literature on medication aides has limitations because many studies have small sample sizes and lack wide geographic coverage. Conducting a nationwide survey provided a more representative sample and an alternative method of collecting data on medication aide safety.

Literature Review

The literature suggests that the implementation of the medication nursing assistant role enhances nursing care and decreases stress among nurses in long-term care facilities (Walker, 2008). The Arizona State Board of Nursing (BON; 2008) indicated that the quality of care did not decrease when medication technicians were introduced into a health care team. On the other hand, Hughes, Wright, and Lapane (2006) suggested that facilities employing medication technicians had more deficiency citations for activities related to medication errors and pharmaceutical services, including medication administration. The authors posited that the number of deficiencies might have been related to the level of supervision. In many states, supervision of medication technicians by professional staff is assumed, but this assumption is questionable. Spector and Doherty (2007) and

the National Council of State Boards of Nursing (2007) argued that there should be adequate education on delegation and supervision for both the medication assistant and the delegating nurse. Research has shown that new nurses report they are not adequately prepared in their nursing programs to delegate tasks to others (Kenward & Zhong, 2006; Li & Kenward, 2006).

The literature also suggests that given their level of training and preparation, unlicensed assistive personnel generally do well with medication administration in the assisted living setting when the bulk of the medications are low risk and routine (Young et al., 2008). Mitty (2009) indicated that 27% of facilities did not provide medication aides with written job descriptions that address the nature and scope of their medication-related responsibilities and called for more rigorous training and supervision of medication aides. The literature also suggests that a lack of clarity in medication aide practice parameters results in confusion and procedures that might "push the envelope" (Reinhard, Young, Kane, & Quinn, 2006). Additionally, Vogelsmeier, Scott-Cawiezell, and Zellmer (2007) found that scope-of-practice issues were raised about assessment. The authors found issues related to administration and monitoring; there appeared to be a lack of communication between a medication-administrators group and a medication-management group regarding changes in residents' conditions and the issue of residents refusing to take medications. Finally, the literature suggests that medication technicians are afraid of being punished for administering late medications (Scott-Cawiezell et al., 2007).

Overall, the results of the discussed literature and a review of medication aide regulations led to the development of a survey

with the goal of providing insight into the work settings, education, supervision, and work roles of medication aides.

Method: Participants and Procedure

State agencies responsible for oversight of medication aide programs were contacted and asked to provide a mailing list of medication aides in their state; 18 of 34 states provided a list. Among the states that did not provide a list, some had only mailing lists of facilities that employ medication aides; some did not have a mailing list for medication aides or facilities; some did not have any medication aides working; and some did not reply. (See Table 1.)

A letter preceded the survey mailing. A follow-up postcard and a second copy of the survey were sent to nonresponders. Of the 20,819 surveys mailed, 2,263 were returned with invalid addresses; 1,273 went to people who opted out; 57 were pulled from analyses for data quality concerns; and 3,455 were returned, resulting in a 20.06% response rate. Many of those who opted out indicated they no longer or they never did work as a medication aide.

Results

For many analyses, data were broken out by the type of agency that regulated the respondent. The three types were BONs; other state agencies, such as the departments of health; and a combination of a BON and another state agency. See Table 1 for a breakdown of each type of jurisdiction that allowed the medication aide role and the state agency that regulated the role. Overall, 27% of respondents were regulated by a BON; 46% were regulated by another state agency; and 27% were regulated by a combination of a BON and another state agency.

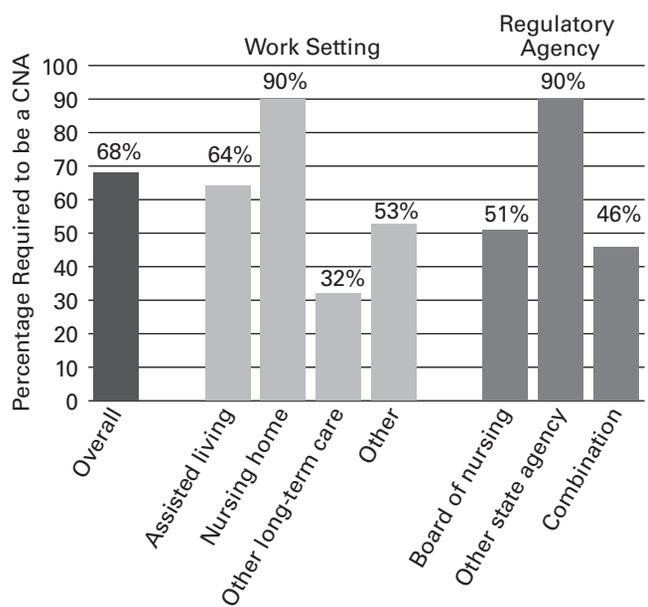
Many analyses were also broken out by the type of work setting (see Table 2):

- Assisted living
- Nursing home
- Other long-term care, including community-based services, board-and-care homes, home health, continuing-care retirement communities, and housing for aging and disabled individuals
- Other, including adult day care, group home, hospice, hospital, rehabilitation facility, residential-care facility, and intermediate-care facility, such as developmentally disabled facility, psychiatric or mental health facility, correctional facility, and schools.

The data were broken out by work setting because of the different regulations for settings; for instance, nursing homes have more regulations than other long-term care facilities. The survey revealed that 17% of respondents regulated by a BON primarily worked in nursing homes, 58% regulated by another state agency worked in nursing homes, and 30% regulated by

FIGURE 1

Percentages of Respondents Required to be Certified Nursing Assistants (CNAs)



a combination of a BON and another state agency worked in nursing homes.

Demographics and Work Settings

The average age of respondents was 45. The majority were female (91%) and White (60%); 27% were Black or African American, and 7% were Hispanic. The majority of respondents had the primary employment title of “medication aide” (72%). The average number of years respondents worked as a medication aide was 8.05.

In terms of client load, respondents working in assisted living facilities (*median* = 25 clients), nursing homes (*median* = 31 clients), and other facilities (*median* = 15 clients) averaged more clients requiring medication administration during a typical shift than respondents in other long-term care facilities (*median* = 4 clients). The median number of hours respondents worked in a typical week was 36, and the median number of hours respondents worked in a typical shift was 8. The most prevalent work shifts were day (7 a.m. to 3 p.m.; 35%) and evening (3 p.m. to 11 p.m.; 26%).

The majority of respondents were required to be a certified nursing assistant before becoming a medication aide (68%). However, percentages varied considerably by type of facility and regulatory agency. (See Figure 1.)

Training and Education

Only 1% of medication aides reported having no training; 43% obtained their education from an employer; and 32% obtained their education from a community or junior college.

TABLE 1

Study Sampling Methods

	Total Medication Aide Population	Study Sample	Number Mailed	Number Received	Regulatory Agency
Arizona	17	5	5	1	BON
Arkansas	47	15	15	5	BON
Colorado	<i>Did not have any medication aides currently working</i>				BON
Connecticut	<i>Did not provide lists</i>				DOH**
DC	465	155	155	28	BON
Georgia	<i>Did not provide lists</i>				BON, LPN; Department of Behavioral Health & Developmental Disabilities (advisory to BON, LPN); Department of Human Resources, Office of Regulatory Services (rules and regulations over community living arrangements)
Idaho	<i>Did not have any medication aides currently working</i>				BON
Indiana	3,161	1,053	1,053	237	DOH
Iowa	<i>Did not have medication aide nor facility lists</i>				Department of Inspections and Appeals
Kansas	9,036	3,012	2,815	511	Department of Health and Environment
Kentucky	<i>Had only facility lists</i>				Cabinet for Health Services
Louisiana	<i>Did not provide lists</i>				Department of Health and Hospitals
Maine (a)	<i>Did not have medication aide nor facility lists</i>				BON
Maine (b)	<i>Did not have medication aide nor facility lists</i>				Department of Health and Human Services
Maryland (a) & (b)	68,479	22,826	3,967*	275	BON
Massachusetts	<i>Had only facility lists</i>				Departments of Public Health, Mental Health, and Mental Retardation
Minnesota	<i>Had only facility lists</i>				BON
Missouri (a)	<i>Had only facility lists</i>				Department of Health and Senior Services, Division of Regulation and Licensure
Missouri (b)	<i>Had only facility lists</i>				Department of Health and Senior Services, Division of Regulation and Licensure
Montana (a)	6	2	2	1	BON
Montana (b)	<i>Did not provide lists</i>				Department of Public Health and Human Services
Nebraska (a)	8,933	2,977	2,810	293	BON; Department of Health and Human Services –Licensure Unit
Nebraska (b)	32	10	10	1	BON; Department of Health and Human Services –Licensure Unit
Nebraska (c)	9,590	3,196	2,825	501	BON; Department of Health and Human Services –Licensure Unit
New Hampshire (a) & (b)	144	48	48	16	BON
New Jersey	2,088	696	696	141	Department of Health and Senior Services
New Mexico	452	150	150	29	BON
North Carolina (a: long-term care/skilled nursing facility)	2,628	876	876	137	BON; Division of health Service Regulation/ Center for Aide Regulation and Education
North Carolina (b: adult care homes)	<i>Had only facility lists</i>				Division of Health Service Regulation Adult Care Licensure Section
North Dakota (a) (b), & (c)	1,772	590	590	158	BON

Study Sampling Methods (continued)					
	Total Medication Aide Population	Study Sample	Number Mailed	Number Received	Regulatory Agency
Ohio	93	31	31	7	BON
Oklahoma	<i>Did not provide lists</i>				DOH
Oregon	1,274	424	424	101	BON
South Carolina	<i>Had only facility lists</i>				Department of Health and Environmental control (responsible for licensing healthcare facilities there are no regulations of nonlicensed staff)
South Dakota	<i>Had only facility lists</i>				BON
Texas (a: facilities, correctional institutions) (b: home health)	10,457	3,485	2,840	580	Department of Aging and Disability Services
Utah	<i>Did not have any medication aides currently working</i>				Division of Occupational and Professional Licensing in collaboration with the BON
Virginia	3,989	1,329	1,329	312	BON
West Virginia	<i>Had only facility lists</i>				Office of Health Facility Licensure & Certification
Wisconsin (a: nursing homes/facilities for the developmentally disabled) (b: hospice)	1,369	456	456	116	Department of Health and Family Services, Division of Quality Assurance
Totals	124,032	41,336	21,097	3,450	
Actual Totals			20,819 ¹	3,455² (20.06%)	

Note. A stratified sampling technique was used.

The entire population was divided into three mailing lists for use with three different studies; hence, "study sample" are the numbers available for use for the current study. In some cases, the number of survey respondents needed (with 4% error and 95% confidence by population size) surpassed the study sample for a particular state; additionally, in many cases, the number of surveys needed to be mailed (given an estimated 20% response rate) surpassed the study sample for a particular state. In both of these cases, the entire study sample for a given state was mailed a survey.

* Maryland has two types of medication aides that function very differently; because the two types were not identified in the mailing lists and because of the very large medication aide population, Maryland was slightly oversampled (based on an estimated 15% response rate).

** In Connecticut, there are also programs regulated by the Department of Developmental Disabilities, the Department of Children and Families, and the Department of Mental Health and Addiction Services. All of these programs have their own regulations and different training requirements.

1. 278 addresses were not mailed; after the mailing set-up was complete, 20,819 were mailed.

2. Number received sums to 3,450; the total reported here is higher because five respondents removed their ID and could not be classified.

BON = Board of Nursing; DOH = Department of Health; LPN = Licensed Practical Nurse.

Of respondents with some medication aide training, the median number of classroom hours was 40. Results varied by work setting. Respondents working in nursing homes reported the highest number of classroom training hours (*median* = 60 hours), followed by respondents working in other facilities (*median* = 40 hours), assisted living facilities (*median* = 40 hours), and other long-term care facilities (*median* = 20 hours). Results also varied by regulating agency. Respondents regulated by a BON (*median* = 40 hours) and respondents regulated by a combination of a BON and another state agency (*median* = 40 hours) had fewer classroom training hours than respondents regulated by another state agency (*median* = 64 hours).

The median number of clinical training hours was 14. Respondents in nursing homes reported the highest number of clinical hours (*median* = 20 hours), followed by respondents in assisted living settings (*median* = 16 hours), other facilities (*median* = 8 hours), and other long-term care facilities (*median* = 1 hour). Respondents regulated by a BON (*median* = 16 hours) and respondents regulated by a combination of a BON and another state agency (*median* = 0 hours) had fewer clinical training hours than respondents regulated by another state agency (*median* = 20 hours). The median number of total training hours was 56, and again, results varied by work setting and regulatory agency. (See Figure 2.)

TABLE 2

Work Settings

	Overall (n = 3,384)
Assisted living	1,107 (33%)
Nursing home	1,330 (39%)
Combination of assisted living or nursing home and some other facility	16 (< 1%)
Other long-term care	
Community-based services	49 (1%)
Board-and-care homes	18 (1%)
Home health	86 (3%)
Continuing care retirement communities	19 (1%)
Housing for aging and disabled individuals	41 (1%)
Adult day care	24 (1%)
Group home	135 (4%)
Residential-care facility	81 (2%)
Intermediate-care facility (for example, developmentally disabled facility)	112 (3%)
Other	
Hospice	14 (< 1%)
Hospital	33 (1%)
Rehabilitation facility	62 (2%)
Psychiatric or mental-health facility	69 (2%)
Correctional facility	52 (2%)
Schools	33 (1%)
Other	103 (3%)

Of respondents who indicated they had some medication aide training, the majority reported that nurse delegation (71%) and nurse supervision (83%) were covered. Also, 46% indicated that medication aide training needed to be more challenging. When identifying the components that need to be more challenging, 59% of these respondents said the classroom training; 83% said the clinical training; 55% said in-class testing/quizzes; and 51% said the certification exam. Though many respondents wanted training to be more challenging, 28% said the training they received adequately prepared them to “some extent,” and 71% said it “absolutely” prepared them.

Supervision

Of all respondents, 8% reported having no supervision. Results varied by setting: 6% of these respondents worked in assisted living; 3% worked in nursing homes; 21% worked in other long-term care; and 10% worked in other facilities. Results also varied by regulatory agency: 8% of these respondents were regulated by a BON; 3% were regulated by another state agency; and 15% were regulated by a combination of a BON and another state agency.

Of the respondents who indicated they had supervision, 19% reported their supervisor was never on site. Of these respondents, 21% worked in assisted living; 8% worked in nursing homes; 41% worked in other long-term care; and 21% worked in other settings. (See Figure 3.) Additionally, 22% of those regulated by the BON, 13% regulated by another state agency, and 25% regulated by a combination of the BON and another state agency indicated their supervisor was never on site.

Of respondents who indicated they had supervision, 10% reported interacting with their supervisor during a typical shift “zero/none” times, and 27% reported “1–2 times.” However, 42% “agreed” and 41% “strongly agreed” that their supervisor was available whenever they needed assistance.

Communication

When asked how frequently communication between respondents and a licensed nurse regarding medication administration broke down, 39% reported “never”; 26% reported “a few times a year”; and 35% reported “about once a month” to “every day.” The percentages for communication breakdowns regarding patient monitoring and changes in patient status were similar.

When asked how frequently communication between respondents and a licensed nurse regarding patients’ refusal to take a medication broke down, 49% reported “never”; 19% reported “a few times a year”; and 33% reported “about once a month” to “every day.” When asked how frequently communication breakdowns related to knowing when to obtain more information about a patient’s status and conveying it to a licensed nurse occurred, 48% said “never”; 22% said “a few times a year”; and 31% said “about once a month” to “every day.”

Authorized Duties

A relatively large percentage (21%) of respondents indicated they were not given a written job description addressing the scope of their medication-related responsibilities. A higher percentage (33%) reported a need for more information about their authorized duties, and 21% thought some tasks they performed were beyond their role.

Respondent Comments on Authorized Duties

Respondents who expressed concerns about performing tasks beyond the scopes of their roles were asked to specify the tasks, and 514 (15%) responses were coded into categories. Sample responses by category are presented below.

In these responses, CNA = certified nursing assistant; RN = registered nurse; MA = medication aide; IPPB = intermittent positive-pressure breathing; ER = emergency department; MAR = medication administration record; ADLs = activities of daily living.

**Performing Multiple Tasks When Administering Meds,
Performing Multiple Roles (62 responses)**

- What a nurse is supposed to do—they want the CNA to do their job.
- Doing CNA tasks during a med pass.
- Answer call while you are giving meds. Take out garbage. Care for residents. Too many things when you are giving meds.
- Having more patients—this needs to be regulated by the state and enforced with RN there. Forcing the MA to do things that are to be done by RNs.
- Facility makes us do IPPB treatments and other treatments that a nurse should do, or else we get terminated.
- When short of staff they want us to do CNA's job. This can cause med errors and lack of concentration.
- Some nurses give us all the responsibility. We need to be aware of medication errors.

Assessments (20 responses)

- Assessing patients when giving prn medications. Assessing a patient's pain levels.
- Assessing residents when falls occur. No nurse on duty, only available 9 to 5 or via phone, but never answers.
- Calling physician and family in regards to a resident's care. Deciding whether or not to send resident to ER (assessments).

Overworked/Role Issues (28 responses)

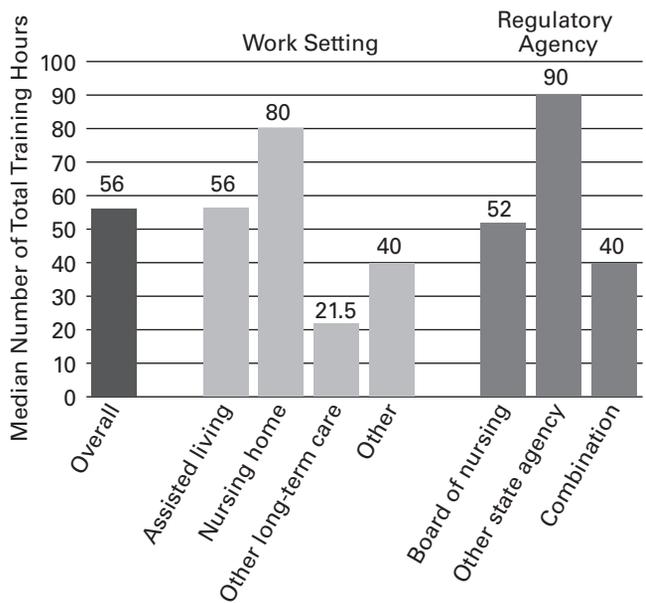
- Giving medication on two separate floors at the same time.
- We have only two med techs and we have 283 people, plus showers and MAR at the end of the month and do med passes. If someone calls we have to go to the homes. The number of patients I administer medications to (55 patients) is too much.
- Total care of a resident in assisted living facility without the needed help or supplies.

Meds, Treatments, Procedures, Wounds, Insulin, Breathing, Narcotics, Pain (119 responses)

- Giving meds I'm not familiar with. Observing effect of med changes. Giving prn meds with little info as to why.
- Administer inhalant, oxygen treatments, nebulizer, and IPPB. Give initial dose of medication, perform blood glucose test. Assist the nurse to instill irrigation fluids. Colostomy, urinary catheter, enema.
- Giving breathing treatments. Skin treatments. Wounds, etc. Initial doses.
- Dressings, decubitus ulcers stages III and IV.
- Neb treatments, med reviews, and verifications.
- Gastric-tube feedings. Jejunostomy-tube colostomy.
- Sign out medications for them. Borrow from other patients' meds. Nebulizer treatment—not in my scope but charge nurses expect me to do it.

FIGURE 2

Median Number of Total Training Hours Required



Doctor, Pharmacy, Family Communications/Change or Reorder Medications/Initial Meds/Documentation (59 responses)

- Calling the doctor. Faxing orders to the pharmacy. Taking phone orders from doctors.
- Asked to call doctors to change or reorder medications.
- Calling pharmacy to reorder meds.
- Some nurses will not give initial dose.
- Deal with family members because nurse doesn't want to.
- Writing in nurses' notes. Writing on all prn meds and behaviors.
- Sometimes when someone falls I do all of the paperwork and decide if they need medical help.

Issues Related to Patient Care (19 responses)

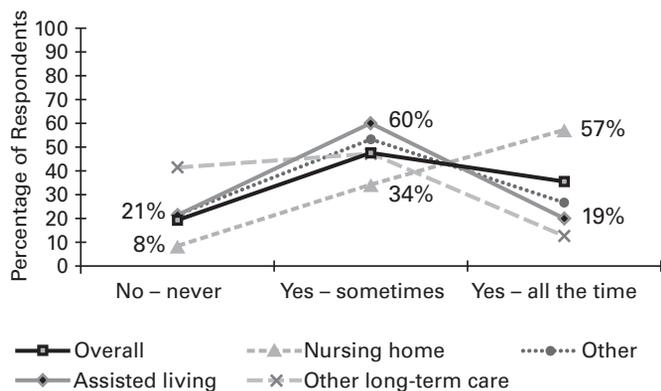
- Caring for people who should be in a nursing home or hospital or hospice house.
- When we have an emergency we are sometimes expected to take full control of the situation because we cannot get a hold of nurse on call—this happens a lot.
- Taking vital signs—this is not taught in medication technician training.

Other Issues Related to Patient Care (including CNA duties) (103 responses)

- CNA duties. Laundry. Housekeeping.
- Cooking, cleaning, laundry, activities, yard work, answering the door...dishes, serving, pick up after the animals, carry groceries and put away. Never-ending chores.

FIGURE 3

Percentages of Supervised Respondents With Supervisors on Site



- Feeding. Showers.
- Washing kitchen linens. I don't think you should be doing caregiver tasks if you are hired to do medication administration.
- Cleaning litter boxes. Washing director's clothes. Cleaning director's house.
- Making mixed alcohol drinks.
- ADLs, dressing residents, bathing, etc.
- Clipping client's finger/toenails or shaving (risk of blood exposure).
- Facility security. Building maintenance.
- Handing out cigarettes to smokers.
- Housekeeping. Cooking. Laundry. Receptionist. Plumbing. Total care.

Multiple Issues and Other (74 responses)

- Assessing patients. Insulin shots. Drawing blood. Deciding what level of oxygen for oxygen tanks. Narcotics. Colostomy changes.
- Breathing treatments. Tube feedings. Pumps on/off.
- Supervising role of caregivers (CNAs) in absence of nurse.
- Taking finger-sticks. Administering insulin. Documenting on the resident weekly. Documenting in resident logs. Care. Laundry.
- Giving meds. Helping in dining room. Making beds. Doing baths. Feeding people. Serving trays. Giving towels. Doing charge aide work. Doctor's orders. Anything else asked of us.

Respondents were asked which, if any, of the six rights of medication administration they needed to perform better. Overall, more respondents reported right time (27%) and right documentation (31%) versus right patient (14%), right medication (17%), right route (14%), and right dose (17%). A large percentage (32%) indicated they were afraid of being disciplined for administering late medications.

Medication Administration

Inhalants

Respondents were allowed to administer inhalant medications (79%), metered-dose inhaler medications (68%), medication used for intermittent positive-pressure breathing treatments (23%), medications or treatments via nebulizer (66%), and oxygen (69%).

Injectable drugs

Overall, 29% of respondents indicated they were allowed to administer medications by injection; however, results varied by work setting and regulatory agency. (See Figure 4.)

Of respondents permitted to administer medications by injection, 27% could use the intramuscular route; 7% could use the intravenous route; 62% could use the subcutaneous route; 19% could use the intradermal route; and 7% could use the hypodermoclysis route.

Also, 70% of respondents permitted to administer medications by injection could administer predrawn insulin, and 57% could administer insulin that was not predrawn. A much higher percentage of respondents regulated by a BON (72%) were permitted to administer insulin that was not predrawn compared with respondents regulated by a combination of a BON and another state agency (58%) and respondents regulated by another state agency (20%).

Of all respondents permitted to administer medications by injection, 34% could administer epinephrine by injection, and 6% could administer anticoagulants by injection.

Topical drugs

The vast majority of medication aides (94%) were allowed to administer topical medications. Of these respondents, much higher percentages of those working in assisted living (54%), other long-term care facilities (58%), and other facilities (52%) were allowed to administer topical medications requiring a sterile dressing than those working in nursing homes (23%). A similar pattern was evident for topical medications requiring an assessment of skin condition.

Of the respondents permitted to administer topical medications, 93% could apply topical patches; 46% could administer nitroglycerin paste; 19% could provide treatment involving advanced skin conditions, including stage III and IV decubitus ulcers; 43% could administer topical medications requiring a sterile dressing; 34% could administer topical medications requiring an assessment of skin condition; 8% could use topical medications for debridement, and 40% could apply hydrocolloid dressings.

Oral drugs

The majority of respondents were allowed to administer sublingual medications (82%) and maintenance doses of oral anticoagulants such as warfarin (Coumadin; 78%).

Tubes

Overall, 8% of respondents were allowed to administer drugs via a nasogastric tube; 17% could give drugs via a gastric tube; and 9% could give drugs via a jejunostomy tube.

Drug classes

A strong majority of respondents reported they were allowed to administer controlled substances (90%). Of these respondents, 82% were allowed to administer schedule II narcotics.

Additionally, 27% of respondents were allowed to administer chemotherapeutic agents. Of these respondents, 39% could administer only oral maintenance chemotherapy, and 22% could administer only tamoxifen.

Other tasks

Respondents were allowed to administer the following:

- First dose of a new medication (80%)
- First dose of a changed medication (87%)
- As needed or prn medications (only after an assessment of the patient by a licensed nurse) (89%)
- As needed or prn medications (without an assessment of the patient by a licensed nurse) (67%)
- Medications when the patient's condition is unstable or the patient has changing nursing needs (49%)
- Medications when the supervising nurse is unavailable to monitor the progress or the effect of the medication on the patient (46%)
- Medications without delegation by a nurse (67%)
- Medications requiring a mathematical conversion between units of measurement to determine the correct dose (35%)
- Medications given as part of clinical research (12%)

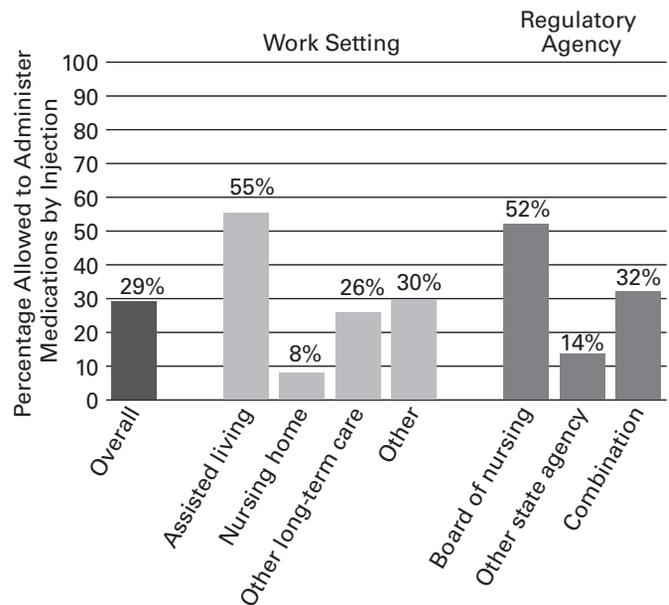
The majority of respondents were allowed to administer drops, ointments, or sprays into the eyes (95%), ears (93%), and nose (94%). Far fewer were allowed to administer barium or other diagnostic contrast media (21%).

Respondents were allowed to perform the following tasks or activities:

- Regulate intravenous fluids (4%)
- Program insulin pumps (4%)
- Complete documentation for medication administration (82%)
- Complete medication error reports (67%)
- Take telephone or verbal orders for medication (18%)
- Receive written orders for medication (37%)
- Transcribe medication and treatment orders (23%)
- Order initial medications from pharmacy (36%)
- Reorder medications from pharmacy (74%)
- Account for controlled substances (perform a narcotic count), if assisted by a licensed nurse (85%)
- Account for controlled substances (perform a narcotic count), if assisted by another medication aide (76%)
- Receive and count medications (86%)

FIGURE 4

Percentages of Respondents Allowed to Administer Medication Injections



- Instill irrigation fluids of any type (including, but not limited to, those for colostomies, urinary catheters, and enemas; 22%)
- Perform any sterile procedure or medication administration that involves sterile technique (28%)
- Conduct patient assessments or evaluations (23%)
- Engage in patient teaching activities related to medications (49%)
- Take vital signs before or after administering medications (93%)
- Administer medications in a unit-dose package or a prefilled medication holder (86%)
- Assume responsibility for medication pumps, including patient-controlled analgesia devices (8%)
- Perform oral, nasal, or tracheal suctioning (12%)
- Perform blood glucose testing (62%)
- Crush medications without authorization by a licensed nurse (59%)
- Crush medications with authorization by a licensed nurse (74%)
- Destroy medications (36%)
- Calculate drug dosages (26%)

Respondents were expected to do the following:

- Recognize normal and abnormal conditions for the patient (94%)
- Recognize changes in patients' conditions or behaviors (98%)
- Recognize adverse effects (94%)
- Recognize toxic effects (80%)
- Recognize allergic reactions (92%)
- Recognize immediate desired effects (85%)

- Recognize unusual and unexpected effects (90%)
- Recognize changes in patients' conditions that contraindicate continued administration of the medication (81%)
- Anticipate effects that may rapidly endanger a patient's life or well-being and make judgments and decisions concerning actions to take (51%)
- Review the patient's plan of care (61%)
- Collect and document patient conditions (63%)

Finally, a relatively large percentage of respondents (33%) indicated that a licensed nurse never assesses a patient within 30 minutes before or after a patient's medication administration.

Implications and Conclusions

The medication aide role was designed to administer certain categories of drugs via specific routes authorized by state law and delegated to them by a registered nurse (or licensed practical nurse in accordance with state law). Studies indicate that medication aides can perform these responsibilities safely if free from distractions and other responsibilities. The data from the current study imply that a disparity exists between regulation and practice in many nursing homes, long-term care facilities, and other institutions. Medication aides reported being required to take on responsibilities beyond their defined role.

These results have implications for regulators, educators, long-term care administrators, nurses that supervise and delegate to medication aides, and the medication aides themselves. It is the responsibility of all individuals employing and working with medication aides to know the state laws and regulations and adhere to them. Regulators are encouraged to educate long-term care administrators about the legal role and responsibilities of medication aides. State inspectors from Centers for Medicare & Medicaid Services, health departments, or the State Office of the Inspector General should be aware of the data from this study and observe facilities for violations in state regulations regarding medication aide role and responsibilities.

Many education programs can be more rigorous and provide an increased number of hours of clinical and classroom education. In addition to knowing what they should do, medication aides need to know what they should not do. They need to know when to call a nurse and how to refuse when delegated a responsibility beyond their designated legal role. Nurses delegating responsibilities to medication aides must know the law and what they are authorized to delegate and provide the appropriate supervision. Long-term care administrators should examine the findings reported in this study and determine whether discrepancies between state laws and expectations of medication aides exist in their institutions. Administrators must be held accountable when there is a lack of adherence to state regulations regarding medication aides.

Research suggests that medication aides can safely administer medications (Scott-Cawiezell et al., 2007). However, strict

compliance with state regulations, adequate education, adequate supervision, and proper authorized duties need to be in place for the medication aide role to function safely.

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