AGENCY FOR HEALTHCARE RESEARCH AND QUALITY

USER GUIDE: Hand Hygiene Observational Audit Data Tracking Tool for Use in Skilled Nursing Facilities

Introduction

This user guide provides step-by-step instructions for nursing home staff to use the *Hand Hygiene Observational Audit Data Tracking Tool*. The tracking tool enables nursing home staff to efficiently collect, record, analyze, review, and act on observational audit data to improve compliance with the steps in the hand hygiene process.

Built in Microsoft Excel, the tracking tool is designed to capture hand hygiene observational audit data. It is also intended for use with the resource titled, *Observational Audits: A Pathway to Improving Infection Prevention and Preventing the Spread of COVID-19*, which helps skilled nursing facilities establish and implement a process for observational auditing to provide a true assessment of staff performance in the actual work environment.

Implementing observational auditing and capturing data using the Hand Hygiene Observational Audit Data Tracking Tool helps nursing homes collect and analyze data that can be used to support improvements in infection prevention. Specifically, the tracking tool allows nursing homes to:

- Assess hand hygiene compliance at the individual, department, unit, and shift levels.
- Identify whether there are opportunities to improve hand hygiene using soap and water, using alcohol-based hand rub, or both.
- Identify the specific steps in the hand hygiene process where improvement needs to be targeted.
- Measure improvement in hand hygiene compliance over time and visualize it in a run chart that the tracking tool generates automatically as data are entered.

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Entering Monthly Data

1) Instructions tab – setting the timeframe and goal

Before entering your monthly observational audit data, begin on the first tab, labeled Instructions, located in the lower left of the tracking tool. Once in this tab, select an option from each of the drop-down menus (click on the down arrow at the right of the field), which include:

- Nursing Home Name
- Tracking Year
- Tracking Start Date – the month and the year that you are beginning to enter observational audit data.
- Goal Compliance Rate – the hand hygiene compliance goal your facility has established.

NOTE: Enter all the above information to obtain accurate summary and reporting results with the tracking tool.

2) Month tab – recording employee and audit data

Select the month. In the tracking tool, select the appropriate Month tab to begin entering your audit data. The first month for which you record audit data is Month_1, the second is Month_2, etc. Do not rename the month tabs because any modification to these labels will affect the reporting functionality. Once the Tracking Start Date is entered on the Instructions tab (see Step 1, above), the specific month will be prepopulated in the first cell at the top of each monthly data collection page (Figure 1).

at the top of each data collection page.

Enter the employee name. Enter the employee name (first name/last name) in Column B.

Select the employee job role. In the cell under the Job Role heading in Column C, click on the arrow to the right (Figure 2) to open the drop-down menu, which lists job roles. Table 1 defines each job role; identify the role that best matches the employee's position. Scroll through the list, if necessary, and click on the appropriate job role to populate the cell.

Figure 2 - Job Role type drop-down menu.

Table 1 – Job Titles associated with Job Role in the tracking tool.

Role Type Category in Tracking Tool	Job Titles for Role Type
Admin	All Administration - Administrator, Administrative Assistants, Receptionist, Business office staff, greeters, Unit Clerks/Secretaries, Corporate Leaders (non-nursing)
RN	Director of Nursing (DON), Assistant Director of Nursing (ADON), Educator, Quality Nurse, Unit Staff, and Corporate Nurses
LPN/LVN	Licensed Practical Nurse (LPN)/Licensed Vocational Nurse (LVN) including LPN/LVN Applicants.
Med Aides	Medication Assistants including those working prior to testing
CNA	Certified Nursing Assistants and those working prior to testing; restorative assistants
EVS	Environmental Service Director, environmental services (EVS) staff, laundry attendants
Maintenance	Maintenance Director and maintenance staff
Diet	Dietary Director and dietary staff
SW-Rec	Directors and staff in the Social Work Department and Recreation/Activities/Community Life Department
Rehab	Directors and rehab staff – Physical Therapist (PT), Physical Therapist Assistant (PTA), Occupational Therapist (OT), Certified Occupational Therapy Assistant (COTA), and Therapy Assistants
Providers	Doctors, Nurse Practitioners, Physician Assistants, Clinical Nurse Specialist
Care Partners	Paid unlicensed staff who provide non-direct assistance (feeding assistant, hospitality assistant)
Volunteers	Volunteers
Vendors	Outside contractors: pharmacy, lab, x-ray, refill drink machines, deliver newspapers, lawn care, painters, electricians, etc.

Enter the audit location. Next, enter the location within your facility where the observational audit of the employee's hand hygiene activity occurred in Column D (Figure 3). The location could include a resident's room, a unit floor, or recreational area. Since location is unique and specific to each facility, these cells are open text fields, meaning you can enter data rather than select options from a preprogramed list. In this open text field, consider including details such as room number or specific hand sanitizer stations on a unit (e.g., hand sanitizer station, near storage closet) to record your data. It is important to use consistency with entering locations to ensure accurate analysis. For example, entering Room #325 and Room No. 325 will result in two different categories for analysis.

Figure 3 - Example of Location entry.

Enter the audit date. Next enter the date the audit occurred using the month/day/four-digit year format in Column E.

Enter the audit time. Under the Audit Time Block in Column F, click into the cell and select the drop-down arrow on the right (Figure 4). This preprogrammed cell provides four hour increments to allow for tracking and trending at various times of day (e.g., shift change, mealtime, etc.). Select the time block that aligns with the time the audit occurred for the employee observed.

Figure 4 - Example Time Block entry.

Enter NO for each audit line item that the employee failed to pass. Once you have entered the employee-level information, you are ready to begin entering the observational data for each line item to the right of the tracking tool. Items #1- #8 relate to hand hygiene with soap and water, items #9 and #10 relate to hand hygiene with alcohol-based hand rub (ABHR). Lastly, items #11 - #13 are general observations and should be recorded for **both** hand hygiene with soap and water and hand hygiene with ABHR audit data recording. The tracking tool only extracts the failures in each category, so you are **only required to select "NO"** when an employee has "Not Met" the auditing standard for the specific activity (Refer to *Observational Audits: A Pathway to Improving Infection Prevention and Preventing the Spread of COVID-19* for details on auditing and standards). If an employee met the goal, the cell may remain blank.

Like the Job Role and Audit Time Block cells, to record "Not Met" for a line item, click into the cell and select "NO" from the drop-down menu to the right of the cell (Figure 5). The tab will then automatically calculate how many "Not Met" observations or failures, were recorded from each audit. You will notice the number of "NO"/"Not Met" entries will be totaled automatically at the end of each employee line on the far right.

Figure 5 - Selection of "Not Met" entry or NO.

As you conduct your observational audits each month, continue adding employee-level information and the results from each employee's audit (Figure 6). Transition to the next tab once you begin a new month and begin recording your data employee by employee.

| | | | | | | Hand Hygiene with Soap & Water | | | | |
Employee Name	Job Role	Location (e.g. Room #, Unit,..)	Audit Date (mm/dd/yyyy)	Audit Time Block	1. Checks that sink areas are supplied with soap and paper towels	2. Turns on faucet and regulates water temperature	3. Wets hands and applies enough soap to cover all surfaces of hands	4. Vigorously rubs hands for at least 20 seconds including palms, back of hands, between fingers, and wrists	5. Rinses thoroughly keeping fingertips pointed down
John Smith	Rehab	Room #325	2/25/2021	3p - 7p	NO		NO		
Mary Jones	Maintenance	Recreation A	2/25/2021	11a - 3p					
Susan Davis	Dietary	Room #312	2/26/2021	11a - 3p		NO			NO
Kevin Miller	Dietary	Dining Room	2/26/2021	3a - 7a	NO				NO
Joe Harris	Dietary	Room #212	2/26/2021	11p - 3a				NO	
Ann Johnson	Dietary	Room #102	2/28/2021	7p - 11p	NO		NO		
Deb Jones	Dietary	Dining Room	2/28/2021	7p - 11p					
Linda Smith	Dietary	Recreation A	2/28/2021	7p - 11p					
Mark Jones	Dietary	Room #300	2/28/2021	7p - 11p	NO		NO		

Analyzing Hand Hygiene Compliance Rates

Summary Rates Tab

All the data entered in each month is rolled up into the Summary Rates tab, located at the lower left of the tracking tool. This tab provides a high-level summary of the audit data for your facility, including and the average number of failures (NO/Not Met) per audit, and a breakdown of where the failures are occurring by both line item (#1 - #13) and category (Hand Hygiene with Soap & Water, Hand Hygiene with ABHR, and General Observations) (Figure 7).

Figure 7 - Overview data from Summary Rates tab.

NURSING HOME RATES

Reporting Month		Month_1	Month_2	Month_3	Month_4	Month_5	Month_6	Month_7	Month_8	Month_9	Month_10	Month_11	Month_12
		Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21
HAND HYGIENE COMPLIANCE	# of Employees Audited	9	9	9	9	9	9	9	9	9	9	9	9
	# of Perfect Audits	2	0	2	1	0	2	2	1	2	2	2	2
	Hand Hygiene Compliance Rate	22.2%	0.0%	22.2%	11.1%	0.0%	22.2%	22.2%	11.1%	22.2%	22.2%	22.2%	22.2%
	Average # Failures per Audit	1.89	3.44	2.22	2.78	3.00	2.44	2.00	2.78	2.33	2.22	2.78	2.33
NUMBER OF FAILURES BY LINE ITEM	**Hand Hygiene with Soap & Water** 1. Checks that sink areas are supplied with soap and paper towels	2	4	1	4	4	3	3	4	3	3	3	3
	2. Turns on faucet and regulates water temperature	3	4	1	2	3	2	3	2	2	3	3	3
	3. Wets hands and applies enough soap to cover all surfaces of hands	0	2	1	2	2	2	1	2	1	1	2	1
	4. Vigorously rubs hands for at least 20 seconds including palms, back ofhands, between fingers, and wrists	1	2	1	1	1	0	1	1	1	2	1	1
	5. Rinses thoroughly keeping fingertips pointed down	3	4	1	2	3	2	3	2	2	3	3	3
	6. Dries hands and wrists thoroughly with paper towels	0	1	0	1	1	1	1	1	0	0	1	0
	wastebasket	0	2	1	1	1	1	0	1	1	0	1	1
	8.Uses paper towel to turn off faucet to prevent contamination to clean hands	0	1	1	1	1	1	0	1	1	0	1	1
	Hand Hygiene with ABHR 9. Applies enough product to adequately cover all surfaces of	2	3	4	3	3	3	1	3	3	2	3	2
	10. Rubs hands including palms, back of hands, between fingers until allsurfaces dry	2	3	4	3	3	3	1	3	3	2	3	2
	General Observations 11. Direct care providers—no artificial nails or enhancements	1	1	1	1	1	1	1	1	1	1	1	1
	12. Natural nails are clean, well groomed, and tips less than ¼ inch	2	2	2	2	2	1	2	2	2	2	1	2
	13. Skin is intact without open wounds or rashes	1	2	2	2	2	2	1	2	1	1	2	1
NUMBER OF FAILURES BY CATEGORY	Hand Hygiene with Soap & Water	9	20	7	14	16	12	12	14	11	12	15	13
	Hand Hygiene with ABHR	4	6	8	6	6	6	2	6	6	4	6	4
	General Observations	4	5	5	5	5	4	4	5	4	4	4	4

The Summary Rates tab provides graphs outlining the average number of failures per audit and the hand hygiene compliance rate comparison to the overall compliance goal (% of total audits considered to have perfect competency, i.e. no "Not Mets") (Figure 8). This information is based on all of the audit data entered during the tracking year.

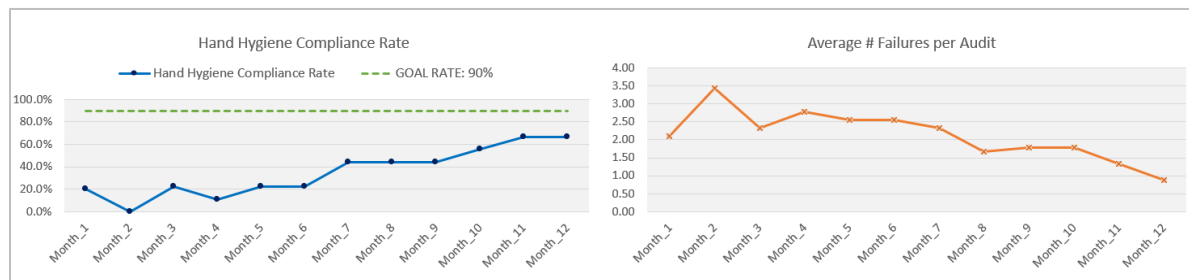*Figure 8 - Hand hygiene compliance reporting graphs.*

In addition, the Summary Rates tab provides the ability to compare two months of data along with a week-to-week comparison of each month to further pinpoint and analyze deficiencies and identify improvement opportunities. (Figure 9).

Figure 9 - Month-to-month data comparison in the Summary Rates tab.

NURSING HOME RATES

	SELECT TWO MONTHS OF TRACKING →		Jan-21					Mar-21				
WEEKLY (Su - Sa) RATES	**Start of Week**		1/1/2021	1/3/2021	1/9/2021	1/15/2021	1/21/2021	3/1/2021	3/7/2021	3/13/2021	3/19/2021	3/25/2021
	End of Week		1/2/2021	1/8/2021	1/14/2021	1/20/2021	1/31/2021	3/6/2021	3/12/2021	3/18/2021	3/24/2021	3/31/2021
HAND HYGIENE COMPLIANCE	# of Employees Audited		0	1	4	2	2	4	0	3	1	1
	# of Perfect Audits		0	1	0	0	1	1	0	0	0	1
	Hand Hygiene Compliance Rate			100.0%	0.0%	0.0%	50.0%	25.0%		0.0%	0.0%	100.0%
	Average # Failures per Audit			0.00	2.50	2.50	1.00	2.75		2.33	2.00	0.00
NUMBER OF FAILURES BY LINE ITEM	Hand Hygiene with Soap & Water	supplied with soap and paper towels		0	1	1	0	1		0	0	0
		2. Turns on faucet and regulates water temperature		0	2	1	0	1		0	0	0
		3. Wets hands and applies enough soap to cover all surfaces of hands		0	0	0	0	1		0	0	0
		least 20 seconds including palms, back of hands, between fingers, and wrists		0	1	0	0	0		1	0	0
		5. Rinses thoroughly keeping fingertips pointed down		0	2	1	0	1		0	0	0
		6. Dries hands and wrists thoroughly with paper towels		0	0	0	0	0		0	0	0
		wastebasket		0	0	0	0	1		0	0	0
		8. Uses paper towel to turn off faucet to prevent contamination to clean hands		0	0	0	0	1		0	0	0
	Hand Hygiene with ABHR	adequately cover all surfaces of hands		0	1	0	1	2		1	1	0
		10. Rubs hands including palms, back of hands, between fingers until all surfaces dry		0	1	0	1	2		1	1	0
	General Observations	11. Direct care providers—no artificial nails or enhancements		0	0	1	0	0		1	0	0
		groomed, and tips less than ¼ inch long		0	1	1	0	0		2	0	0
		13. Skin is intact without open wounds or rashes		0	1	0	0	1		1	0	0
NUMBER OF FAILURES BY CATEGORY	Hand Hygiene with Soap & Water		0	6	3	0	6		1	0	0
	Hand Hygiene with ABHR		0	2	0	2	4		2	2	0
	General Observations		0	2	2	0	1		4	0	0

Rates by Job Role, Location, and Time Block

In addition to the Summary Rates tab, the data entered each month is also rolled into multiple Rate tabs along the lower left of the tracking tool. These tabs include: Rates by Job Role, Rates by Location, and Rates by Time Block. Using the same reporting functionality as the Summary Rates tab, you can segment your facility data for more specific reporting. For example, to review the hand hygiene compliance rate by the Dietary Job Role, select the Rates by Job Role tab. Once the tab is selected, scroll to the top row and select Dietary from the drop-down list (Figure 10). Follow the same process in the other rate tabs to review data based on a specific location or four-hour time block.

The Rates by Job Roles, Location, and Time Block tabs offer the same graphing, summary information, and month-to-month comparison options as the Summary Rates tab, providing a more detailed and segmented analysis of your facility's overall observational audit data.

Figure 70 - Hand hygiene compliance rates by job title.

Select Job Role: Dietary

NURSING HOME RATES BY JOB ROLE: Dietary

Reporting Month			Month_1	Month_2	Month_3	Month_4	Month_5	Month_6	Month_7	Month_8	Month_9	Month_10	Month_11	Month_12
			Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22
HAND HYGIENE COMPLIANCE		# of Employees Audited	7	3	5	4	4	2	6	1	4	6	2	6
		# of Perfect Audits	0	0	0	0	0	0	0	0	0	0	0	0
		Hand Hygiene Compliance Rate	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
		Average # Failures per Audit	2.57	3.00	2.80	2.75	2.75	3.50	3.33	2.00	2.75	3.17	2.50	2.67
NUMBER OF FAILURES BY LINE ITEM	Hand Hygiene with Soap & Water	supplied with soap and paper towels	3	2	2	2	2	2	3	0	2	4	1	2
		2. Turns on faucet and regulates water temperature	3	3	2	2	2	1	3	0	2	2	1	2
		3. Wets hands and applies enough soap to cover all surfaces of hands	1	1	1	1	1	1	3	1	1	2	1	1
		least 20 seconds including palms, back of hands, between fingers, and wrists	1	1	1	1	1	0	2	0	1	2	1	1
		5. Rinses thoroughly keeping fingertips pointed down	3	3	2	2	2	1	2	0	2	2	1	2
		6. Dries hands and wrists thoroughly with paper towels	1	1	1	1	1	1	2	0	1	1	0	1
		wastebasket	0	1	0	0	0	0	1	0	0	1	1	0
		8.Uses paper towel to turn off faucet to prevent contamination to clean hands	0	0	0	0	0	0	2	0	0	1	0	0
	Hand Hygiene with ABHR	adequately cover all surfaces of hands	1	0	2	0	0	0	2	0	0	1	0	2
		10. Rubs hands including palms, back of hands, between fingers until all surfaces dry	1	0	2	0	0	0	2	0	0	1	0	2
	General Observations	11. Direct care providers—no artificial nails or enhancements	1	0	0	0	0	0	0	0	0	1	0	0
		groomed, and tips less than ¼ inch long	2	0	2	1	1	0	1	0	1	2	1	1
		13. Skin is intact without open wounds or rashes	1	1	2	1	1	1	2	0	1	1	0	2
NUMBER OF FAILURES BY CATEGORY		Hand Hygiene with Soap & Water	12	12	9	9	9	6	18	1	9	15	6	9
		Hand Hygiene with ABHR	2	0	4	0	0	0	4	0	0	2	0	4
		General Observations	4	1	4	2	2	1	3	0	2	4	1	3