Supplemental Tables

**Supplemental Table 1:** Hand Hygiene and Glove Use Rates by HCP Role Type and Activities Performed in Room

1. **Hand Hygiene Before Patient Care\***

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **All HCP** | **Nurse** | **CNA** | **PT/OT** |
| Changing Linens  < 4 min  ≥ 4 min | 0/1 (0%)  7/15 (47%) | --  -- | 0/1 (0%)  7/15 (47%) | --  -- |
| Bathing  < 4 min  ≥ 4 min | --  5/11 (45%) | --  -- | --  5/11 (45%) | --  -- |
| Incontinence Care  < 4 min  ≥ 4 min | --  12/27 (44%) | --  0/1 (0%) | --  12/26 (46%) | --  -- |
| Dressing Assist  < 4 min  ≥ 4 min | 1/3 (33%)  13/37 (35%) | --  -- | 1/3 (33%)  12/34 (35%) | --  1/3 (33%) |
| Physical Therapy  < 4 min  ≥ 4 min | 1/1 (100%)  7/28 (25%) | --  -- | --  -- | 1/1 (100%)  7/28 (25%) |
| Taking Vitals  < 4 min  ≥ 4 min | 3/30 (10%)  7/11 (64%) | 2/16 (13%)  5/6 (83%) | 1/14 (7%)  2/5 (40%) | --  -- |
| Hygiene Visit  < 4 min  ≥ 4 min | 0/1 (0%)  9/17 (53%) | --  -- | 0/1 (0%)  9/17 (53%) | --  -- |
| Repositioning  < 4 min  ≥ 4 min | 5/19 (26%)  5/28 (18%) | 0/1 (0%)  1/2 (50%) | 5/17 (29%)  3/23 (13%) | 0/1 (0%)  1/3 (33%) |
| Patient Transfer  < 4 min  ≥ 4 min | 4/12 (33%)  11/38 (29%) | --  -- | 4/10 (40%)  8/33 (24%) | 0/2 (0%)  3/5 (60%) |
| Toilet Assist  < 4 min  ≥ 4 min | 3/7 (43%)  10/32 (31%) | --  2/2 (100%) | 3/7 (43%)  7/28 (25%) | --  1/2 (50%) |
| Medication Administration  < 4 min  ≥ 4 min | 13/50 (26%)  10/20 (50%) | 12/48 (25%)  10/20 (50%) | 1/2 (50%)  -- | --  -- |
| All Activities  < 4 min  ≥ 4 min | 30/124 (24%)  96/264 (36%) | 14/65 (22%)  18/31 (58%) | 15/55 (27%)  65/192 (34%) | 1/4 (25%)  12/38 (32%) |

1. **Hand Hygiene After Patient Care\***

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **All HCP** | **Nurse** | **CNA** | **PT/OT** |
| Changing Linens  < 4 min  ≥ 4 min | 1/2 (50%)  6/14 (43%) | --  -- | 1/2 (50%)  6/14 (43%) | --  -- |
| Bathing  < 4 min  ≥ 4 min | --  6/13 (46%) | --  -- | --  6/12 (50%) | --  0/1 (0%) |
| Incontinence Care  < 4 min  ≥ 4 min | --  15/27 (56%) | --  1/1 (100%) | --  14/26 (54%) | --  -- |
| Dressing Assist  < 4 min  ≥ 4 min | 4/4 (100%)  17/38 (45%) | --  -- | 4/4 (100%)  16/34 (47%) | --  1/4 (25%) |
| Physical Therapy  < 4 min  ≥ 4 min | 0/1 (100%)  3/28 (11%) | --  -- | --  -- | 0/1 (100%)  3/28 (11%) |
| Taking Vitals  < 4 min  ≥ 4 min | 15/30 (50%)  5/12 (42%) | 10/16 (63%)  3/7 (43%) | 5/14 (36%)  2/5 (40%) | --  -- |
| Hygiene Visit  ≥ 4 min  < 4 min | 1/1 (100%)  7/15 (47%) | --  -- | 1/1 (100%)  7/15 (47%) | --  -- |
| Repositioning  < 4 min  ≥ 4 min | 12/20 (60%)  16/30 (53%) | 1/1 (100%)  2/2 (100%) | 11/18 (61%)  11/24 (46%) | 0/1 (0%)  3/4 (75%) |
| Patient Transfer  < 4 min  ≥ 4 min | 6/13 (46%)  25/43 (58%) | --  3/3 (100%) | 6/11 (55%)  18/35 (51%) | 0/2 (0%)  4/5 (80%) |
| Toilet Assist  < 4 min  ≥ 4 min | 3/7 (43%)  22/31 (71%) | --  2/2 (100%) | 3/7 (43%)  19/27 (70%) | --  1/2 (50%) |
| Medication Administration  < 4 min  ≥ 4 min | 29/53 (55%)  12/19 (63%) | 27/51 (53%)  12/19 (63%) | 2/2 (100%)  -- | --  -- |
| All Activities  < 4 min  ≥ 4 min | 71/131 (54%)  134/270 (50%) | 38/68 (56%)  23/34 (68%) | 33/59 (56%)  99/192 (52%) | 0/4 (0%)  12/44 (27%) |

1. **Glove Use During Patient Care\***

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **All HCP** | **Nurse** | **CNA** | **PT/OT** |
| Changing Linens  < 4 min  ≥ 4 min | 1/2 (50%)  11/13 (85%) | --  -- | 1/2 (50%)  11/13 (85%) | --  -- |
| Bathing  < 4 min  ≥ 4 min | --  14/14 (100%) | --  -- | --  13/13 (100%) | --  1/1 (100%) |
| Incontinence Care  < 4 min  ≥ 4 min | --  31/31 (100%) | --  1/1 (100%) | --  30/30 (100%) | --  -- |
| Dressing Assist  < 4 min  ≥ 4 min | 4/4 (100%)  38/42 (90%) | --  -- | 4/4 (100%)  36/38 (95%) | --  2/4 (50%) |
| Physical Therapy  < 4 min  ≥ 4 min | 0/1 (0%)  3/30 (10%) | --  -- | --  -- | 0/1 (0%)  3/30 (10%) |
| Taking Vitals  < 4 min  ≥ 4 min | 6/30 (20%)  6/12 (50%) | 2/16 (13%)  3/7 (43%) | 4/14 (29%)  3/5 (60%) | --  -- |
| Hygiene Visit  ≥ 4 min  < 4 min | 1/1 (100%)  16/17 (94%) | --  -- | 1/1 (100%)  16/17 (94%) | --  -- |
| Repositioning  < 4 min  ≥ 4 min | 16/21 (76%)  24/31 (77%) | 1/1 (100%)  1/2 (50%) | 14/19 (74%)  21/25 (84%) | 1/1 (100%)  2/4 (50%) |
| Patient Transfer  < 4 min  ≥ 4 min | 8/12 (67%)  38/45 (84%) | --  2/3 (67%) | 8/11 (73%)  33/35 (94%) | 0/1 (0%)  3/7 (43%) |
| Toilet Assist  < 4 min  ≥ 4 min | 7/8 (88%)  28/32 (88%) | --  1/2 (50%) | 7/8 (88%)  26/28 (93%) | --  1/2 (50%) |
| Medication Administration  < 4 min  ≥ 4 min | 9/55 (16%)  4/21 (19%) | 8/53 (15%)  4/21 (19%) | 1/2 (50%)  -- | --  -- |
| All Activities  < 4 min  ≥ 4 min | 52/134 (39%)  213/288 (74%) | 11/70 (16%)  12/36 (33%) | 40/61 (66%)  189/204 (93%) | 1/3 (33%)  12/48 (25%) |

\*Note. Sum of all observations exceeds 385 because multiple activities could be performed during a single observation. 82 observations included multiple activities.

**Supplemental Table 2: Hand hygiene compliance and glove use stratified by ARO hand contamination before and after care**

|  |  |  |  |
| --- | --- | --- | --- |
|  | Pre-Care ARO Hand Contamination | Pre-Care Hands Clean | P |
| HH Before | 4/31 (12.9%) | 92/321 (28.7%) | 0.09 |
| HH After | 15/33 (45.5%) | 150/325 (46.2%) | 1.00 |
| Glove Use | 17/35 (48.6%) | 152/341 (44.6%) | 0.72 |
|  |  |  |  |
|  | Post-Care ARO Hand Contamination | Post-Care Hands Clean | P |
| Glove Use | 9/22 (40.9%) | 143/319 (44.8%) | 0.83 |
|  |  |  |  |