



Integration of hospital with congregate care homes in response to the COVID-19 pandemic – Supplemental material

Christina K Chan, Mercedes Magaz, Victoria R Williams, Julie Wong, Monica Klein-Nouri, Sid Feldman, Jaclyn O'Brien, Natasha Salt, Andrew E Simor, Jocelyn Charles, Brian M Wong, Steve Shadowitz, Karen Fleming, Adrienne K Chan, Jerome A Leis

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Table S1: Infection prevention and control audit tool for congregate care homes

Key Indicators		Compliance		Remarks
		Yes	No	
1	Hand Hygiene			
1.1	ABHR is easily accessible (e.g. point of care, common area, nursing station)			
1.2	ABHR with 70%-90% alcohol concentration, not expired			
1.3	Adherence HH (observe moment 1 and 4 ³¹)			
1.4	HH sinks have paper towels and liquid soap dispensers in close proximity. No empty liquid soap dispensers.			
1.5	HH is performed in residents before meal time			
2	Environmental Cleaning			
2.1	High touch areas are cleaned twice a day			
2.2	Furniture in common areas is cleaned, not visibly torn, broken or soiled			
2.3	Hospital-grade cleaning products are being used			

Table S1: Infection prevention and control audit tool for congregate care homes (*continued*)

2.4	Shared equipment is cleaned and disinfected between uses			
2.5	Equipment is dedicated to residents in precaution			
3	<i>Use of PPE</i>			
3.1	PPE is available at point of care			
3.2	Appropriate use of PPE			
3.3	PPE is donned or doffed in appropriate sequence			
3.4	Signage is clear indicating the resident is on additional precautions			
3.5	Facility has adequate of PPE supplies (>4 weeks based on manager or director's updates)			
4	<i>Screening</i>			
4.1	Screeners are located at facility entry/exit point with a physical barrier separation as needed (e.g. plexiglass)			
4.2	All residents are screened twice daily and staff are screened at least once daily			
4.3	All visitors are screened at entry point			
4.4	Prevalence screening is conducted routinely (e.g. weekly, bi-weekly)			
4.5	All new residents (including readmissions) are managed based on symptoms status, testing results, outbreak status and vaccine status (if available)			
5	<i>Physical distancing (if applicable based on long term care directives³²)</i>			

**Table S1: Infection prevention and control audit tool for congregate care homes (continued)**

5.1	There is sufficient space of maintaining at least 2m from other residents			
5.2	Signage is posted in break rooms/meeting rooms for maximum occupancy and physical distancing reminders			
5.3	Moving or removing tables/chairs in dining rooms to ensure there is no cluster seating			
5.4	Staff break room has adequate space and limited seating to ensure physical distancing			
5.5	Staggered activities/dining/breaks for residents and staff			

Abbreviations: ABHR, alcohol-based hand rub; HH, hand hygiene; PPE, personal protective equipment

Table S2: Resident COVID-19-related mortality in congregate care homes with or without pre-existing infection prevention and control program before the pandemic^a

Presence of pre-existing IPAC program	Baseline (Wave 1 pre-immunization, original virus)	Implementation period 1 pre-immunization (Wave 2, original virus)	Implementation period 2 post-immunization (Wave 2 and 3, Alpha variant)	Implementation period 3 post-immunization (Wave 4, Delta variant)	Implementation period 4 post-immunization (Wave 5, Omicron variant)
Pre-existing IPAC program (control group)	0.21	0.87 (OR=4.27, 95% CI, 0.90–20.17, p=0.067)	0.57 (OR=2.80, 95% CI, 0.54–14.45, p=0.22)	N/A	0.90 (OR=4.42, 95% CI, 0.94–20.90, p=0.061)
No pre-existing IPAC program (intervention group)	3.76	0.98 (OR=0.33, 95% CI, 0.17–0.64, p=0.001)	0.17 (OR=0.053, 95% CI, 0.013–0.22, p<0.001)	N/A	0.37 (OR=0.084, 95% CI, 0.033–0.21, p<0.001)

Abbreviations: CI, confidence interval; COVID-19, coronavirus disease 2019; IPAC, infection prevention and control; N/A, non-applicable because no resident deaths during implementation period 3
^a Baseline (wave 1 pre-COVID-19 immunization, original virus) is the reference category

Table S3: Sensitivity analysis comparing baseline versus implementation period 1 with COVID-19 recovered residents excluded

Outcome measures	Baseline (Wave 1 pre-immunization, original virus)	Implementation period 1 pre-immunization (Wave 2, original virus)	OR, 95% CI, p-value
COVID-19-related mortality	2.3%	1.0%	OR=0.42, 95% CI, 0.25–0.71, p<0.001
Case fatality rate	38.1%	14.1%	OR=0.27, 95% CI, 0.15–0.48, p<0.001
Cases detected among residents	6.0%	6.9%	OR=1.17, 95% CI, 0.92–1.49, p=0.199

Abbreviations: CI, confidence interval; COVID-19, coronavirus disease 2019; OR, odds ratio