

# Using occupation to support dementia and delirium care in hospital: A pilot study of a Task Box intervention

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## Background

About 90% of patients with dementia or delirium present with behavioural and psychological symptoms (BPSD) during hospital stay.<sup>1</sup> Occupational engagement and use of activity may assist in reducing BPSD in hospital.<sup>1,2</sup>

Task Boxes consists gradable occupational based activities that draw upon a person's procedural memory to complete one to two step activities (e.g. folding handkerchiefs).<sup>3</sup> Task Boxes combine familiar tasks with a person-centred and Montessori approach to support individual's strengths and capabilities, and to promote sensory and cognitive stimulation.<sup>3,4</sup>

## Aim

1. Evaluate staff and caregiver acceptability of Task Boxes to support occupational engagement for patients with cognitive impairment in hospital.
2. Examine the impact of Task Boxes on patient adverse events and function.

## What is in a Task Box?



- A sign inviting patients to complete the task
- All the materials needed for the task (e.g. shoes, polish, brush)
- Instruction booklet that shows all the steps to complete the task
- Reminiscence questions related to the task

### References:

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3. Memory Box Collective. *Task Box manual: How to create and use task boxes with older adults*. 2021.
4. Camp GJ, Schneider N, Orsillo-Jones S, et al. Montessori-based activities for persons with dementia (Vol. 2). Mensorah Park Centre of Senior Living; 2006.

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For more information about the Task Box Intervention, please scan the QR code to learn more



## Results

### Total of 44 patients included in this study:

- 18 males (41%) and 26 females (59%)
- median age of 86 years old (IQR = 7)
- 38 patients used the Task Boxes, 6 patients did not use Task Boxes
- 27.3% patients with dementia, 54.5% with delirium, remaining 18.2% patients with other cognitive impairment

### 3 Task Boxes delivered per patient by staff

OT students and assistants delivered most Task Boxes (n = 51), followed by EN and RN (n = 29) and AIN (n = 9)

### Staff and caregivers feedback



**95.5%** of staff (n = 21) accepted, liked and were confident in facilitating Task Box interventions



**All caregivers** (n = 4) accepted, liked and were confident in facilitating Task Boxes with sufficient training received from staff

### Patient adverse events & Hospital Acquired Complications (HACs)

Compared to previous ward data in 2023, there were...



**48% reduction in Code Blacks**



**40% reduction in inpatient falls**

### Patient functional capacity (changes from admission to discharge)

Patients who engaged in the Task Boxes were observed to have...



**Significant improvement in motor function**  
(p < 0.001)



**Significant improvement in cognitive function**  
(p < 0.001)

## Conclusion

- Task Box intervention is feasible in hospital settings, and is well accepted by staff and caregivers to improve patient care.
- Staff and caregivers are confident in facilitating Task Box.
- Task Box intervention trended to reduce number of patient adverse events and behaviours.
- Task Boxes can potentially improve patient's cognitive function.