

### About

*Nursing Research and Knowledge Enterprise was established to enhance the rigour of nursing research, promote evidence-based nursing practice and encourage scholarly inquiry among nurses in SGH.*

### Current Focus Areas for Nursing Research

- ▶ Nursing Care Quality and Outcomes  
*nursing sensitive indicators such as pressure ulcers, falls, phlebitis and use of physical restraints*
- ▶ Nursing Workforce  
*well-being and impact of nurses*
- ▶ Care Environment  
*physical caregiving environment and nursing care processes*
- ▶ Caregiver Wellbeing  
*education and support for caregivers of patients*
- ▶ Evidence Based Nursing  
*informing clinical inquiries with evidence from different sources*

### Nursing Care Quality and Outcomes

#### Key Project: A Randomised Controlled Trial to Evaluate the Effectiveness of Prophylactic Dressing and Fatty Acids Oil in the Prevention of Pressure Ulcers

This study aimed to determine if the application of a prophylactic dressing or the application of a fatty acids oil spray; in addition to standard prevention strategies, would reduce the incidence of sacral pressure ulcer among high risk patients in the acute care setting. Recruitment of patients is on-going; 447 patients have been recruited thus far. Although fewer patients in the prophylactic dressing group developed sacral ulcers, preliminary analysis indicated no statistically significant association between the treatment groups and the development of pressure ulcers ( $\chi^2=0.28$ ,  $p=0.87$ ).

Presentation: Preliminary Findings of a Randomized Controlled Trial to Evaluate the Effectiveness of Prophylactic Dressing and Fatty Acids Oil in the Prevention of Pressure Ulcers. SGH 21<sup>st</sup> Annual Scientific Meeting. 2015 Apr 10-11. Singapore. (Young Investigator's Award - 3rd)

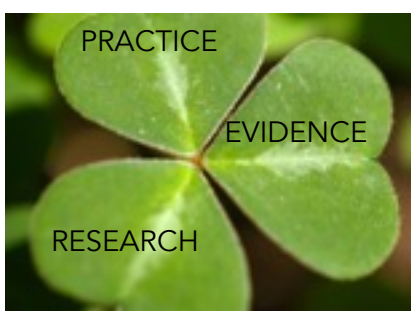
### Nursing Workforce

#### Key Project : Retirement and Re-Employment of Older Nurses

This was a mixed-method study which aimed to identify the challenges older nurses face at work, their views about the re-employment and the factors that influence their decision to extend working life or to retire. Results indicate that older nurses wish to continue working. Financial factors and flexible working hours were identified as significant motivators in older nurses' decision to continue working.

Presentation: Perspectives of Older Nurses in Singapore: A Survey of their Views on Retirement and Re-Employment – ANCC National Magnet Conference; 2015 Oct 7-9; USA

Publication: Uthaman T, Chua TL, Ang SY. Older nurses: A literature review on challenges, factors in early retirement and workforce retention. Proceedings of Singapore Healthcare. 2015. Available from: <http://psh.sagepub.com/content/early/2015/08/13/2010105815610138.abstract>. DOI: 10.1177/2010105815610138



## Care Environment

### Key Project : Applied Discourse analysis and participatory action research to enhance nursing handover

The aim of the current project is to observe, analyse, evaluate and improve on the clinical handover by nurses throughout the patients' journey in the acute care setting. This project will be the first study to contextualize research findings to the local population. This is of particular interest given Singapore's diversity in culture and languages. By adopting a participatory action research method, results of this study will also directly help to improve the quality of nursing handover.

## Caregiver Wellbeing

### Key Project : Understanding factors influencing the choice of discharge destination by older patients post total lower limb replacement: A qualitative study

A qualitative study to explore the decision-making process among elderly patients transition to a community hospital post-TKR or THR surgery in Singapore was conducted. The study showed that perceived unavailability of caregivers, low level of confidence and accessibility of comprehensive community rehabilitation services were important considerations among elderly patients when choosing their discharge destinations and care.

Publication: Chee SZ, Neo YPA, Chen SL, Seah YLE, Li CL, Aung NL, Vellasamy T. Understanding factors influencing the choice of discharge destination by older patients post total lower limb replacement: A qualitative study. Proceedings of Singapore Healthcare. 2015. Available from: <http://psh.sagepub.com/content/early/2015/12/09/2010105815615359>. DOI: 10.1177/2010105815615359

## Evidence Based Nursing

### What is the Impact of Double Checking on Medication Safety, Adherence and Perceptions of Nurses?

Some evidence that it helps to detect errors. However, it is probably unethical to conduct trials given that double-checking is already standard practice. Studies reported low adherence due to organizational factors, knowledge and attitude. Some nurses deemed double-checking to be important while others spoke of increased autonomy and responsibility with single checks. Practice remains in other hospitals for high alert drugs and for pediatrics dosages. There are also increased emphasis on using procedures and technology to 'force checks' and reduce confirmation bias.

### Is dipstick urinalysis an accurate test for screening of diabetes mellitus, renal disorders and urinary tract infections?

Dipstick testing for urinary glucose is insufficiently sensitive to be used as a screening tool for diabetes. Dipstick testing also has limited sensitivity for non-albumin protein. The results are also affected by concentration of

## Grants Awarded in 2015

### SGH Research Grant 2015

The Who, What, When, Where and Why of falls in the acute hospital - A comprehensive analysis of patients' perspectives, patient-specific, staff-related and environmental factors associated with falls

### Mitsui Sumitomo Welfare Foundation Grant (MSIG) 2015

Resiliency in caregiving: older spouses' experience in Singapore

### SHF Research Grant Call 2014

Applied Discourse analysis and participatory action research to enhance nursing handover

## Other Grant Funded Projects

A Randomized Controlled Trial to Evaluate the Effectiveness of Prophylactic Dressing and Fatty Acids Oil in the Prevention of Pressure Ulcers

Identifying and Building Resilience Among Nurses

## Get in Touch With Us

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urine, pH level of urine and administration of agents such as iodinated radiocontrast agents. Hence the false-positive and false-negative rates limit the utility of dipstick testing. Urine dipstick alone seems useful in ruling out the presence of infection (if both nitrites and leukocyte-esterase are negative). But usefulness as a tool to detect infection remains doubtful.

## Publications (names of SGH nurses are in bold)

**Aloweni FAB**, Yost J, Ganann R, Thompson D, Newman K, Hazzan A, McKibbin A, Dobbins M, Ciliska D. The effectiveness of knowledge translation interventions for promoting evidence-informed decision-making among nurses in tertiary care: a systematic review and meta-analysis. *Implementation Science*. 2015;10(98). DOI: 10.1186/s13012-015-0286-1

**Ang SY, Aloweni FAB, Perera K, Say LW, Manickam A, Lee HMJ, Haridas D, Shamsudin HF, Chan JK**. Physical restraints among the elderly in the acute care setting: Prevalence, complications and its association with patients' characteristics. *Proceedings of Singapore Healthcare*. 2015;24(3):137–143. DOI:10.1177/2010105815596092

**Ang SY, Kwan XL, Aloweni FAB, Aw AT, Tan AM, Chua AFS, Tay RLH**. A Descriptive Study on Registered Nurses' Continuing Educational Needs in Research from Three Different Health Care Institutes in Singapore. *Proceedings of Singapore Healthcare*. 2015;24(2): 72–79. DOI: 10.1177/201010581502400202

**Chang YY, Tay AC**. A case series on management of complex scalp wounds. *Wound Practice and Research Journal*. 2015;23(4):174–177

**Guo B**. Gastric residual volume management in critically ill mechanically ventilated patients: A literature review. *Proceedings of Singapore Healthcare*. 2015;24(3). 171–180. DOI:10.1177/2010105815598451

Hooi MTA, Turner BS, **Tan SB**, Tham CS. Effectiveness of an Advanced Practice Nurse–Led Preoperative Telephone Assessment. *Journal of Nursing Care Quality*, Vol. 00, No. 00, pp. 1–6

Liew YX, Teo J, **Too IA**, Ngan CC, Tan AL, Chlebicki MP, Kwa AL, Lee W. Candida Surveillance in Surgical Intensive Care Unit (SICU) in a Tertiary Institution. *BMC Infectious Diseases*. 2015;15(256). DOI:10.1186/s12879-015-0997-6

**Lim SF, Ong SY, Tan YL, Ng YS, Chan YH, Childs C**. Incidence and predictors of new-onset constipation during acute hospitalisation after stroke. *The International Journal of Clinical Practice*. 2015;69(4):422–428. DOI: 10.1111/ijcp.12528

**Ling ML, Tee YM, Soon GT, Amin IM, How KB, Tan KY, Lee LC**. Risk factors for acquisition of carbapenem resistant Enterobacteriaceae in an acute tertiary care hospital in Singapore. *Antimicrobial Resistance and Infection Control*. 2015;4(26). DOI: 10.1186/s13756-015-0066-3

Tartari E, Allegranzi B, Ang B, Calleja N, Collignon P, Hopman J, Lang L, Lee CL, **Ling ML, Mehtar S, Tambyah PA, Widmer A, Voss A**. Preparedness of institutions around the world for managing patients with Ebola virus disease: an infection control readiness checklist. *Antimicrobial Resistance and Infection Control* 2015;4(22). DOI:10.1186/s13756-015-0061-8

Tay K, Tay SK, **Tesalona KC, Rashid NM, Tai EY, Najib SJ**. Factors affecting the uptake of cervical cancer screening among nurses in Singapore. *International Journal of Gynecology & Obstetrics*. 2015;130(3):230–234. DOI: 10.1016/j.ijgo.2015.03.037

Tay SK, **Tesalona KC, Rashid NM, Tai EY, Najib SJ**. Vaccine Misconceptions and Low HPV Vaccination Take-up Rates in Singapore. *Asian Pacific Journal of Cancer Prevention*. 2015;16(12):5119–5124