UNIT NO. 1

DELIVERY OF INTEGRATED CARE

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ABSTRACT

Health Care in Singapore has hitherto been focussed on acute care, namely the treatment of episodes of illness or injury for a short period of time so it is necessary to think of integrated care. Delivery of integrated care however, has to be patient-driven depending on their needs. Not all patients need to be integrated. Some can be served well in the normal regular care delivery system. Begin with the end in mind: patients admitted to restructured hospitals need to have their care needs assessed on the first day of admission. Where integrated care may be needed, initiate early referrals to the medical social worker and advanced integrated case nurses to help communicate with patients and relatives in anticipation of care financial, and placement issues. Use of multidisciplinary case management for effective evaluation and planning of patient needs is the way to go. Different intermediate and long-term care facilities have different requirements and referrals need to be made appropriately.

Keywords: Integrated care; Elderly; Chronic conditions

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INTRODUCTION

Health Care in Singapore has hitherto been focussed on acute care, namely the treatment of episodes of illness or injury for a short period of time. However many people, especially the elderly have chronic health issues; problems that are long term and continuing. They may have more than one chronic condition and may need a variety of health and social services to help them live well. In many cases proper support can allow those with chronic health issues to live in their own homes rather than in institutions as well as avoid hospital services for dealing with complications. But for care to be matching to individual circumstances, the range of services required need to be coordinated and "integrated" by pooling resources from multiple organisations and multiple disciplines.

There are several models of integrated care in the world and in Singapore. Yet to date, no single integrated model of care has been shown to be more effective than the others. As a minimum, successful programmes of integrated care use multidisciplinary care/case managers for those at risk of poor outcomes; and such programmes are supported by a range of accessible health and social services. Decisions tools, assessment and care planning instruments, and integrated data systems are important infrastructure elements for successful integrated care.

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TYPES OF CARE INTEGRATION

Integrated care has become a major theme for healthcare organisations throughout the world because of well-documented issues surrounding the poor quality of care delivered to those with chronic conditions. Health organisations which were developed in response to meeting acute needs have been criticised for fragmentation of care, wasting of resources and poor outcomes for those with chronic conditions. To orchestrate integrated care, a set of services need to be linked, coordinated or integrated (Leutz 1999)[1]. These services are multidisciplinary with services delivered by professionals and providers from various sectors.

In Singapore, the formation of the Agency for Integrated Care (AIC) as the national integrator has taken away certain "headache" by providing the linkages of "Cure" to "Care". Common everyday services that need to be integrated include:

- Short term care – integration of services of family physicians, hospital specialist, physiotherapy, occupational therapy, palliative care, and home care.
- Long Term Care – integration of services of the nursing home, chronic sick home, and sheltered home.
- Social Care – integration of services of social work, family service centers, support groups, volunteer home helps, and meals delivery.
- Housing – adaptations in the house to meet patient needs such as grab bars, bathing stools, and toilet seats
- Supportive services – ambulance, financial assistant (PA, CDC), maid applications.
- Aids and appliances – walking aids, hospital beds, oxygen concentrators, alarm systems.

The concepts of integrated care have been referred to as types, levels and forms based on patient needs and level of integrative activity. (Leutz 1999, Ewards and Miller 2003, Banks 2004, Koder and Kyriacou 2000)[1,2,3,4,5]. There is no single model of integration because the integrating concepts have many dimensions. The form, level or type of integration depends upon the desired outcome. To simplify matters this paper will look at integration within the organisation and across organisations, that is, integration of care across acute tertiary care, intermediate and long term care (ILTC) and primary care.

DELIVERY OF INTEGRATED CARE

Integrated care has to be patient-driven depending on their needs. However, not all patients need to be integrated. Many patients can be served well in the normal regular care delivery system such as in the polyclinic or family physician clinic as

they do not have health issues that require support and care across a variety of settings.

1. Assess patient's needs

Delivery of integrated care starts with the assessment of patients and his or her needs. One of the laws of integration that we should pay attention to is "You can integrate all the services for some of the people, some of the services for all the people, but you can't integrate all the services for all of the people." There is no "one size fits all" scenario in integrated care. Patient's characteristics and conditions can be related to intensity of connections between services or organisations developed by Leutz (1999)[1]. He distinguishes 3 levels of integration:

a. Linkage
   This allows individuals with mild to moderate health care needs to be cared for in systems that serve the whole population without requiring any special arrangement. At this level integration implies adequate referrals to guide the patient to the right place at the right time in the system, as well as good communication between the professionals involved, to promote continuity of care of care when the person goes from services to services.

b. Coordination
   This requires explicit structures be put in place to coordinate care across acute and other health care sectors. A good example would be to have multiple disciplinary teams.

c. Full integration
   This level aims to develop comprehensive care programmes or care package attuned to the specific needs of the patients from pooled resources from multiple systems.

Current integrated care networks in Singapore are at the level of Coordination. It aims to coordinate resources to cater to the needs of the patient across organisations and system. The Agency for Integrated care (AIC) is set up to provide such a link. It coordinates and allocates resources based on patient needs and requirements. This can be done through electronic means via its website at http://www.aic.sg.

2. Multidisciplinary team

Reviews of successful integrated care programmes in America and Canada by Kodner (2006)[6] identified certain key elements to the success of these programmes. Common to all these programmes is the use of multidisciplinary case management for effective evaluation and planning of the patient needs.

The multidiciplinary team provides comprehensive assessment of medical, functional, psychological needs and formulates care plans for the patient. The team should comprise a physician, social worker, a nurse, physiotherapist, occupational therapist and other allied health personnel. Regular meetings are held to discuss patient medical condition, progress in rehabilitation and to formulate care plans for the patient under their care. In the hospital such teams are convened to look into the discharge planning for the hospitalised patient who has care and/or discharge issues.

3. What resources are available?

Community resources are limited in Singapore. Currently there are 61 nursing homes (includes 3 dementia nursing homes, private and VWO run nursing homes), 31 day rehabilitation centers, 6 community hospitals, 2 chronic sick units, 12 dementia day care centers, 3 inpatient hospice, 6 home hospice care providers, and 6 social day care centers with rehabilitation services (Source: AIC). Other community resources include case management services, home help services, family service centers, sheltered homes and destitute homes. As resources are limited, needs assessment should be done for each patient and the proper referrals made via AIC.

Forms can be downloaded and faxed to AIC or via e-referral at http://www.aic.sg. A Resident Assessment Form (RAF) to categorise patients' status needs to be done for every patient referred for placement in a volunteer nursing home. For patients with no careers requiring sheltered home placement, referrals will have to be made directly to the homes and not through AIC.

Once the patient is short listed, the homes will conduct an interview and assessment to assess the suitability of placement in the homes. It is important to note that different homes have different requirements and referrals need to be made appropriately. For example, St. Vincent's Home accepts only patient on Public Assistance (PA) and patients need to be able to cook and wash their own clothes.

4. Discharge Planning

Patients admitted to the restructured hospitals need to have their care needs assessed on the first day of admission. Initiate early referrals to the medical social worker and advanced integrated care nurses to help communicate with patients and relatives in anticipation of care, financial and placement issues. Allied health personnel, physiotherapist; occupational therapist; dietician; and speech therapist's help is enlisted to optimise patient's physical condition before discharge.

If the patient requires further step-down care for further optimisation, referrals should be initiated early to prevent delays in transfer. Ideally patients should be discharged when clinically stable: when there are no new clinical findings on the planned day of discharge[9,10]. Below is a schematics adopted by the Family Physicians in Singapore General Hospital's Department of Family Medicine and Continuing Care to assess and anticipate patient care needs in the hospital (see flow chart for Care Planning).

PROBLEMS AND BARRIERS OF CARE INTEGRATION

The ultimate goal in care integration is for patients to move seamlessly across organisations without having to repeat investigations, and receive duplicated care. However this is easier said than done, there are still barriers and cracks needed to be patched. For example, Madam Poo, a 77-year-old lady with background history of hypertension, diabetes, dyslipidaemia was admitted to the acute hospital in 2011 May 9th for 2 days' history of left sided weakness. She was diagnosed to have left corona radiate infarct. Patient was stabilised and discharged for slow stream rehabilitation on 2011 May 25th.

At the community hospital she made good progress and was able to ambulate with minimal assistance with a quads stick by 2011 August 3rd and was planned for discharge pending care giver training to her daughter. She went for review on 2011 August 3rd and was admitted to the acute hospital for management of hyperkalaemia, which resolved after therapy. However despite communicating with the primary team that there is no necessity to send patient back to the community hospital, the acute hospital staff insisted on this, just to be discharged on the same day.

Such problems would have been avoided if the acute hospital accepts the community hospital therapist assessment, avoiding the unnecessary inconvenience to the patient and her caregiver.

Currently we have a number of years of experience working on integrated care and are beginning to see it work. However we still have a long way to go to make it seamless. There are many barriers to be overcome, and mindsets to be tuned to common frequencies. Some of these obstacles are common among countries with integrated care programme with some deeply rooted in the prevailing organisational and policy systems.[7, 8]

a. Funding

Inadequate public funding to provide sufficient services results in waiting list which hamper adequate referrals and care provision. The Ministry of Health has invested in the building of 3 new community hospital next to restructured hospitals and nursing homes; however this will not materialise till the year 2014. The availability of some other funding in some institutions has also resulted in some step down institutions being more expensive than others after means testing. This results in unequal access and patients who need the care not getting it.

b. Not enough Human resources

Good quality health care professionals in the acute hospital and intermediate and long term care (ILTC) sectors are currently insufficient to meet the demand in the community to effect good continuity of care for patients. It is important to step up the recruitment for these skilled staff and set up training programmes in the university and polytechnic to meet the increased demand.

c. Interface problems

Frictions in collaboration between professionals may hamper collaboration because of differences in their professional cultures and views. Buy-in will be required from all professionals concerned. Involvement of clinicians in integrated care, means having to spend extra time and effort to learn a new skill and knowledge in addition to their current skills to cope with workloads. In particular, physicians need special attention to ensure that they can cope with new demands, especially if those demands involve only a small number of their patients. Currently, the organisations participating in integrated care do not have a unified IT system that can facilitate transfer of information.

d. Costs

The provision of quality of care through better coordinated care, continuing of care and holistic of care in integrated care does not translate to better cost savings. The investments that have to be made in staff and support costs, services and start up costs may outweigh the saving achieved from reduced hospital and or long term care admission.

e. You can't integrate a square peg and a round hole

Underlying difference between health care sectors can frustrate integration effort. Integration efforts can be stymied when providers operate under different rules and regulations. Service coverage, drug availability and payment rules vary from provider to provider in the ILTC and community services can prevent care from being delivered smoothly. Patient disagreements over payment issues can frustrate and delay integration effort and discharges from the acute hospital to community hospitals.

f. Integration becoming an end in itself

Integration services will work smoothly and welcomed by providers, as long as it does not become a way of solving organisation problems while failing to meet patient needs. It should not be just a tool for reducing the length of stay for patients in the acute hospital, while patient needs and care issues are not solved. A proper care plan should have been worked out before transferring patients from provider to provider and the aim should not just a way to offload problems.

DISCUSSION

Patient medical conditions and social issues have become too complex for the Primary doctor to handle alone, he will need a team comprising of nurses and allied health personnel to assist him. Patients in hospitals tend to have multiple complex issues and can be on follow up by multiple specialists. To avoid lapses in patient safety and miscommunication to patients and family, the primary physician will need to coordinate and integrate the care. Medications and appointments will need to be rationalised to avoid duplication and fragmentation of

care. Patients with care issues and discharge issues should be identified early and measures put in place early to prevent delay in the transfer to a step-down care facility. The transition of care of patients from the acute tertiary care to the community hospital should not be viewed as a form of reducing the length of stay of patients at the expense of patients' needs. Care issues should be communicated to the receiving provider and measures put in place before transfer. Contrary to expectation, this has not been happening in patients transferred to the community hospital for step-down care.

Further, integrated care delivery from acute tertiary care to ILTC and primary care providers in the polyclinic has been going smoothly for a few years now. However well trained family physicians in the private sector remain an untapped resource in the framework of care delivery[11]. Whatever involvement there are currently are from individual institutions and their right site programmes such as the DOT and renal right site programme of Singapore General Hospital and Eastern Community Health Outreach programme of Changi General Hospital. It has been 2 years since the incorporation of the national integrator, AIC. It is time for it to take the initiative to engage family physicians in the community to work on a systematic plan for integrated seamless healthcare. The vision of seamless integrative care delivery across all providers will only work if all healthcare providers work together.

CONCLUSIONS

Delivery of integrated care has to be patient-driven depending on their needs. Not all patients need to be integrated. Some can be served well in the normal regular care delivery system.

REFERENCES

1. Leutz W 1999. Five laws for integrating medical and social services: lessons from the United States and United Kingdom. The Milbank Quarterly Vol. 77, No 1; 77-110.
2. Banks P. 2004. Policy framework for integrated care for older people. London: King's Fund, London. Available from world wide web: http://www.kingsfund.org.uk
3. Edwards M, C. Miller. 2003. Two, four, Six, Eight: How we gonna integrate? Office of Public management Ltd. Available from world wide web: http://www.opm.co.uk.
4. Kodner D, C. Kyriacou. 2000. Fully integrated care fro frail elderly: two American Models. International Journal of Integrated Care Vol 1 (Oct-Dec). Available from world wide web: http://www.ijic.org.
5. Kodner D, C. Spreeuwenberg 2002. Integrated care: meaning, logic, applications and Implications – A discussion paper. International Journal of Integrated care Vol. 2 (Oct-Dec). Available from world wide web: http://www.ijic.org.
6. Kodner D 2006. Wole system approaches to Health and social care partnerships for frail elderly; an exploration of North American models and lessons. Health and Social care in the community. Vol 14, No 5: 383-90.
7. Henk Niles. Integrated care: concepts and background. Chapter 1. Integrating Services for Older people. Pages 17-32.
8. M MacAdam. 2008. Frameworks of Integrated Care for the Elderly: A Systematic Review. Available from world wide web: http://www.cprm.org.
9. Shepperd S, Parkes J, McClaran JJM, Phillips C. Discharge planning from hospital to home. Cochrane database of systematic reviews 2003.
10. Kripalani S, Jackson AT, SchnipperJL, Coleman EA. Promoting effective transitions in care at hospital discharge: a review of key issues for hospitalists. J Hosp Med 2007 Sep; 2(5):314-23.
11. Michael Yee. The mindset for integrated care. The college mirror – June 2011:Vol: 37(2); 12-14. Available from world wide web: http://www.cfps.org.sg

LEARNING POINTS

- **Patients admitted to restructured hospitals need to have their care needs assessed on the first day of admission. If integrated care is needed, initiate early referrals to the medical social worker and advanced integrated case nurses to help communicate with patients and relatives in anticipation of care financial, and placement issues.**
- **For those who need integrated care, use of multidisciplinary case management for effective evaluation and planning of patient needs is the way to go.**
- **Different intermediate and long-term care facilities have different requirements and referrals need to be made appropriately.**

Table 1. Resident Assessment Form

RESIDENT ASSESSMENT FORM

(For Nursing Home Residents)

Name:_____ IC No:

Date of Birth:_____/_____/_____ Age: _____ yrs Sex: M /F Ethnic Group: C / M/ I/ O

Rating	A	B	C	D
Q1 Mobility (Guide Bk Pg1)	Independent 0	Requires some Assistance (physical/ assistive device) 3	Requires frequent assistance/ turning in bed 10	Requires total physical assistance 16
Q2 Feeding (Guide Bk Pg 2)	Independent 0	Requires some Assistance 3	Requires total Assistance 10	Tube-feeding 10
Q3 Toileting (Guide Bk Pg 3)	Independent 0	Requires some physical assistance 3	Requires commodes / bedpans / urinals 8	Incontinent and totally dependent 16
Q4 Personal Grooming & Hygiene (Guide Bk Pg 4)	Requires no assistance 0	Requires assistance for some activities/ supervision 2	Requires assistance for all activities 4	Bed/ trolley bathing 6
Q5 Treatment (Guide Bk 5-6)	Daily Medication Oral/Topical : 1 pt	Daily Medication Oral/Topical : 1 pt Injection: 2 pts	Daily Medication Oral/Topical : 1 pt Injection: 2 pts Physiotherapy:4 pts	Daily Medication Oral/Topical : 1 pt Injection: 2 pts Physiotherapy:4 pts Sp*procedures pts mins@1 pt/ 5 min
Q6 Social & Emotional Needs (Guide Bk pg 7)	Nil 0	Occasionally 1	Often 2	Always 3
Q7 Confusion (Guide Bk Pg 8-9) • loses way • loses things • disorientated	Nil 0	Occasionally (1-3 times a week) 3	Often (4-6 times a week) 8	Always (Daily) 10
Q8 Psychiatric Problems (Guide Bk 10-11) • hallucination • delusions • anxiety • depression	Nil 0	Mild Interference in Life 2	Moderate Interference in Life 4	Severe Interference in Life 6
Q9 Behaviour Problem (Guide Bk pg 12-13) • restless • disruptive • absconds • uncooperative	Nil 0	Occasionally (1-3 times a week) 3	Often (4-6 times a week) 10	Always (Daily) 16

* Sp = Special #Pt = Points

Total Points: Category: I / II / III / IV

Category I: <6
II: 7 – 24
III: 25 – 48
IV: > 48

Name of Officer Completing the RAF / / Date _____ Signature

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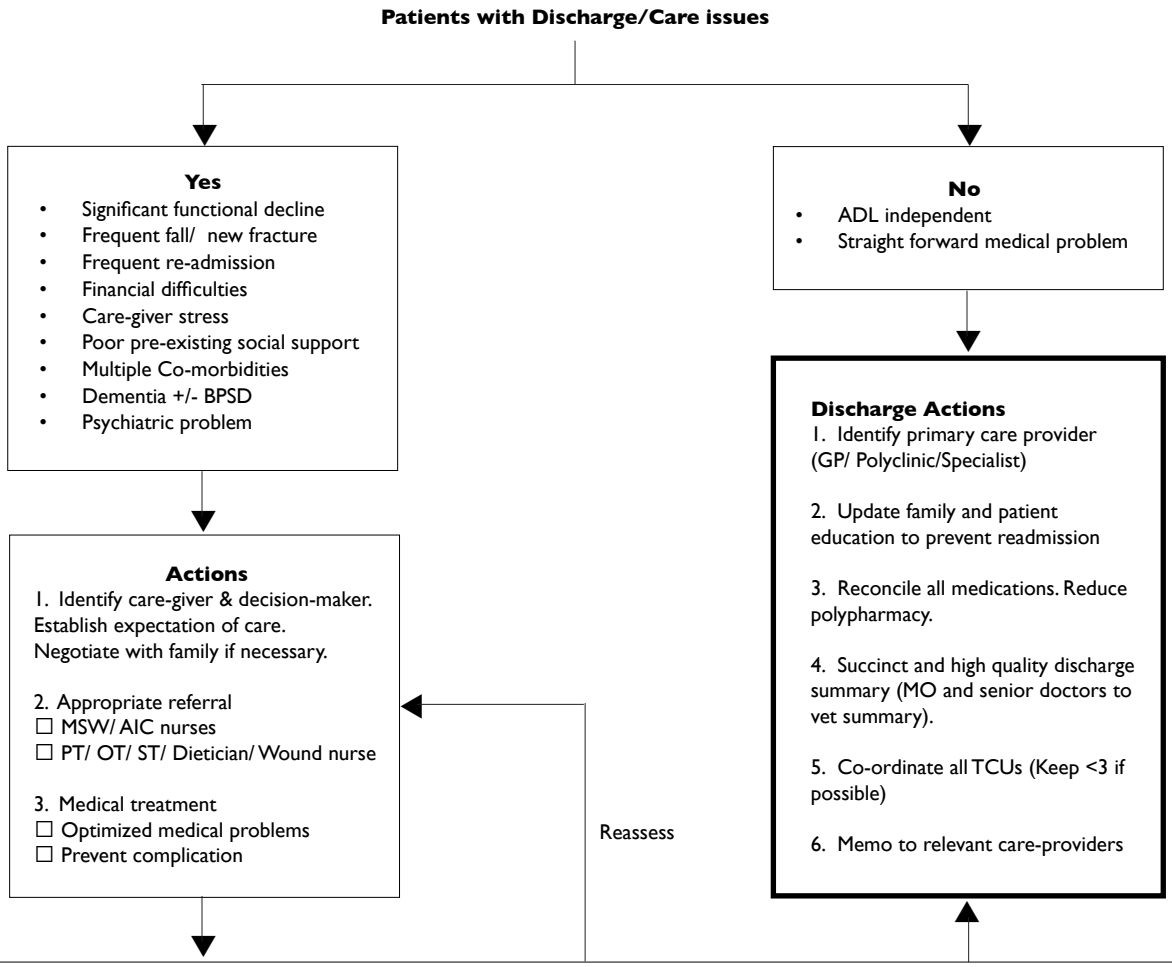
Figure 1 - Flow chart for Care Planning



	Has family and financial support	**Has family but limited financial support (means testing)**	**Poor/No family and financial support**
1. Good rehab potential 2. Good/ minimal functional impairment	☐ Home ☐ Day Rehab ☐ Com Hospital ☐ Support group	☐ Day Rehab ☐ Com Hospital ☐ Support group	☐ Com Rehab Program ☐ Com Home Help Service ☐ Religion-based support
1. Poor rehab potential 2. ADL partial-dependent (CAT2) 3. ADL fully dependent (CAT3) 4. Care-giver stress	☐ Care-giver training ☐ Maid ☐ Home medical ☐ Home nursing HNF ☐ Elder day-care ☐ Private Nursing Home	☐ Care-giver training ☐ Home medical ☐ Home nursing HNF ☐ Elder day-care	☐ Shelter Home (CAT 2) ☐ Destitute Home (CAT 2 ☐ VNH (CAT 3) ☐ IDP (Interim discharge plan) (CAT 3) ☐ Dementia NH
1. Terminal illness (< 6 mth) 2. End-of-life issues (eg pain, bed sores)	☐ Home ☐ Home Hospice	☐ Home ☐ Home Hospice ☐ Inpatient hospice (< 3 months prognosis) ☐ Chronic Sick hospital (> 3 months prognosis)	☐ Inpatient hospice (< 3 months prognosis) ☐ Chronic Sick hospital (< 3 months prognosis)