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Improving access to palliative care for people who have had a stroke and their carers

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- Background
- Introduction to the palliative care stroke project
- Audit results
- Conclusion

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Palliative care in stroke

- Palliative care has been advocated for all dying patients regardless of presenting illness
- Predominant association has been for those dying of malignant disease
- Growing interest in the role of palliative care in non-malignant disease

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Palliative care in stroke

- In 2009 Australians will suffer around 60,000 new and recurrent strokes
- One in five people having a first-ever stroke die within one month and one in three die within a year

National Stroke Foundation

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Palliative care in stroke

- Stroke patients requiring palliative care often present with complex and challenging needs in terms of physical care as well as family & carer issues

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Palliative care in stroke

- NSF guidelines state people with stroke who are dying, their families and caregivers, should have care that is consistent with the principles and philosophies of palliative care in accordance with national palliative care standards

Standards for Providing Quality Palliative Care for All Australians (Palliative care Australia 2005)

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Palliative care in stroke

- In 2005 a Victorian stroke stakeholder consultation process involving providers and patients identified that there is a recognised need for the development of high quality palliative care services for stroke patients and their families

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Palliative care in stroke

- Also identified that carers & families want to know about a palliative care prognosis and how it can be managed

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Palliative care in stroke

- July 2007-June 2008 14,742 people presented at Victorian hospitals with stroke
  - *1,387 people subsequently died in hospital*
  - *The north and west metropolitan region has the largest number of stroke separations of all DHS regions and account for approx 40.5% of all stroke presentations in Victoria*

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Palliative care stroke project

- Based on the data about palliative care and stroke needs in Victoria
  - Melbourne Health (Palliative Care Service and Stroke Care Unit)
  - Melbourne Citymission
    - approached to participate in the palliative care/ stroke pilot project

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Palliative care stroke project

- Aims
  - To establish a partnership model between palliative care services and stroke services to ensure patients and their carers receive timely and appropriate palliative care, particularly community palliative care

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Palliative care stroke project

- Aims
  - Ensure that palliative care and stroke providers have a shared understanding about how and when palliative care becomes involved in the care of someone who has had a stroke

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Palliative care in stroke

- The palliative care stroke project is an 18 month project running from January 2009 to June 2010
- Initiative of the Victorian Department of Health and funded by the Australian Government, Department of Health and Ageing

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Audit results

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Audit

- Ethics approval for Quality Assurance project gained from Melbourne Health HREC

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Audit

Purpose of audit

- Identify predictive factors for referral to the PCS for patients under the care of the SCU
- Compare characteristics of patients referred to the PCS to those not referred
- Identify patients who appear appropriate for palliative care referral but were not referred to the PCS
- Assist in informing development of a care pathway for palliative stroke patients

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Audit

- Subjects
  - All SCU patients referred to the PCS
  - All patients discharged from the SCU with modified Rankin Scale (mRS) 6 or 5

mRS Categories

- 0 No symptoms at all
- 1 No significant disability despite symptoms; able to carry out all usual duties and activities
- 2 Slight disability; unable to carry out all previous activities, but able to look after own affairs without assistance
- 3 Moderate disability; requiring some help, but able to walk without assistance
- 4 Moderately severe disability; unable to walk without assistance and unable to attend to own bodily needs without assistance
- **5 Severe disability; bedridden, incontinent and requiring constant nursing care and attention**
- **6 Dead**

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Audit

- Captured 12 months of patient admissions from 1st January 2008 - 31st December 2008
- PCS and SCU databases searched for eligible patients

Audit

- Subjects were classified according to stroke type
  - Primary Intracerebral Haemorrhage (PICH)
  - Cerebral infarct (CI)
    - TACI, PACI, POCI, LACI

Oxfordshire classifications

- Total anterior circulation infarct (TACI)
  - Combination of “3 of 3”
    - Weakness of at least 2 of 3 body areas (face/arm/leg)
    - Homonymous hemianopia
    - Higher cerebral dysfunction (dysphasia, dyspraxia)

Negligible chance of a good recovery and mortality is high

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Oxfordshire classifications

➢ Partial Anterior Circulation Infarct (PACI)

- 2 of 3 TACI criteria or restricted motor/ sensory deficit (e.g. one limb, face and hand or higher cerebral dysfunction alone)
- More restricted cortical infarcts- occlusion of branches of MCA (e.g. upper division- usually no field deficit; lower – motor sensory defect negligible)

More likely to have an early recurrent stroke which will tend to lead to an accruing neurological deficit

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Oxfordshire classification

➢ Lacunar Infarct (LACI)

- Pure motor (most common)
- Complete or incomplete weakness of 1 side involving the whole of 2 of 3 body areas (face/arm/leg)
- Pure sensory
- Sensorimotor
- Ataxic hemiparesis

Low case fatality rate, but a large proportion are substantially handicapped

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Oxfordshire classification

- Posterior Circulation Infarct (POCI)
  - Affecting brainstem, cerebellar or occipital lobes

A few patients die early presumably due to interference with vital brainstem structures

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Table 1. Modified Rankin Score at discharge

Modified Rankin Score	No. (%) of patients referred to PCS (N = 62)	No. (%) of patients not referred to PCS (N = 96)
6	49 (79)	38 (40)
5	8 (13)	58 (60)
3 or 4	5 (8)*	Not included in audit

* Not included in subsequent analysis

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Table 2 Socio- demographic characteristics

Socio-demographics	No. (%) of patients referred to PCS (N = 57)	No. (%) of patients not referred to PCS		
		mRS = 5 (N = 58)	mRS = 6 (N = 38)	mRS 5 & 6 (N = 96)
Gender				
Male N (%)	22 (39)	28 (48)	21 (55)	49 (51)
Female N (%)	35 (61)	30 (52)	17 (45)	47 (49)
Age median (IQR)				
Male	73.5 (69 – 77)	79 (73 - 86)	69 (62 - 76)	75 (66 – 82)
Female	83 (81 – 89)	80.5 (76 – 86)	78 (72 – 82)	79 (75 – 85)

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Table 4. Pre-morbid living arrangements

Pre-morbid living arrangements	No. (%) of patients referred to PCS (N = 57)	No. (%) of patients not referred to PCS		
		mRS = 5 (N = 58)	mRS = 6 (N = 38)	mRS 5 & 6 (N = 96)
Lives alone	18 (32)	10 (17)	10 (26)	20 (21)
Lives with relatives	33 (58)	38 (66)	26 (68)	64 (67)
SRS / hostel	3 (5)	5 (9)	1 (3)	6 (6)
Nursing home	3 (5)	3 (5)	1 (3)	4 (4)
Rehabilitation	0 (0)	2 (3)	0 (0)	2 (2)

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Table 5. Stroke sub-type

Stroke sub-type	No. (%) of patients referred to PCS (N = 57)	No. (%) of patients not referred to PCS		
		mRS = 5 (N = 58)	mRS = 6 (N = 38)	mRS 5 & 6 (N = 96)
Cerebral infarction	37 (65)	38 (66)	19 (50)	57 (59)
PICH	20 (35)	20 (34)	19 (50)	39 (41)

Table 6. Oxfordshire classification of cerebral infarction

Oxfordshire classification	No. (%) of patients referred to PCS (N = 37)	No. (%) of patients not referred to PCS		
		mRS = 5 (N = 38)	mRS = 6 (N = 19)	mRS 5 & 6 (N = 57)
TACI	19 (51)	13 (34)	6 (31.5)	19 (33)
PACI	13(35)	21 (55)	6 (31.5)	27 (47)
LACI	1 (3)	1 (3)	1 (5.5)	2 (4)
POCI	4 (11)	3 (8)	6 (31.5)	9 (16)

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Stroke types

- Patients not referred to the PCS discharged with a mRS of 6
  - ½ presented with PICH
  - The 30 day mortality rate for PICH in one study was 44%, with ½ these deaths occurring within the first 2 days of onset

Broderick JP, Brott TG, Duldner JE, Tomsick T, Huster G. Volume of Intracerebral Haemorrhage A Powerful and Easy-to-Use Predictor of 30-Day Mortality *Stroke* Vol 24, No 7 July 1993

Table 8. Discharge destinations for mRS 5 patients

Discharge destination	No. (%) of patients referred to PCS (N = 8)	No. (%) of patients not referred to PCS (N = 58)
GEM unit	1 (12.5)	38 (65)
Nursing home	4 (50)	8 (14)
Palliative care unit	2 (25)	0 (0)
Rehabilitation	0 (0)	5 (8)
Other acute hospital	0 (0)	4 (7)
Hostel	0 (0)	1 (2)
Medical unit	0 (0)	1 (2)
Home with palliative care	1 (12.5)	0 (0)
Home	0 (0)	1 (2)

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Table 9. Length of stay

	Patients referred to PCS	Patients not referred to PCS		
		mRS = 5	mRS = 6	mRS 5 & 6
Median	6	14	3	9.5
IQR	4 - 14	7 - 24	1 - 9	3 - 18

Conclusion

- Audit highlights several issues
  - Majority of patients referred from the SCU to the PCS died in the acute setting of major metropolitan hospital after an average admission time of a week

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Conclusion

- Further work is needed to explore the possibility of offering patients and their carers greater opportunities of where patients die
  - Whether this is at home or another more appropriate setting than a busy acute hospital ward

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Conclusion

- Examine the way stroke patients are identified as requiring palliative care
  - At present there is no standardised referral criteria or care pathway in place to assess palliative care stroke patients and identify their care needs
  - Further work is required to see if standardised referral criteria and a care pathway can be developed to assist in these areas

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Palliative care stroke project

- Develop a care pathway for palliative care stroke patients
- Education of staff
- Commence pilot phase January 2010

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Acknowledgement

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