

*ORIGINAL ARTICLE*

# An Introspection At Trending Of Patient Admissions to the Palliative Ward of a Regional Referral Hospital in Malaysia in 2014, 2015 and 2017

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## ABSTRACT

The Palliative Ward of HRPB has a rapid turnover of patients. The objectives were to analyze the reasons for admission, treatment rendered, duration of admission and outcome of patients at the Palliative Ward, HRPB Ipoh for January to June 2017, compared to the same period in 2014 and 2015. This was a retrospective audit, with purposeful sampling of all admissions for the period of January to June 2017. The data was keyed into an SPSS database from the electronic patient information system (SPP). Relevant personal identifiers were omitted. Data collected was then analyzed between cancer and non-cancer patients and comparisons made to data collected for the same period in 2014 and 2015. A total of 821 admissions were included, 277 for the period of January to June 2017, with comparisons made to 246 and 298 admissions respectively for the same period in 2015 and 2014. A notable rise in the percentage of non-cancer patients in 2017 (24.55%) versus 8.72% in 2014 and 9.76% in 2015 which comprised Chronic Renal Failure (20.69%), Chronic Liver Failure (18.10%) and End Of Life Care (24.14%) was seen. However, patients with cancer predominated with Respiratory Malignancies (21.42%) followed by Gastrointestinal Malignancies (13.19%) and Breast Malignancies (12.06%). The presenting features include Pain (26.31%), Dyspnea (21.56%) and Fever (10.23%). Of interest, pain was more prevalent amongst cancer (32.48%) versus non-cancer patients (5.43%) but Dyspnea showed almost equal prevalence (20.42% versus 32.61%). The mainstay of pharmacological treatment was Opioid Therapy for 61.38% and Antibiotics (12.81%). Most patients were admitted for 5 days or less (54.68%), discharged home (53.11%) or passed away at the Palliative Ward (34.47%). The reasons for admissions to the palliative ward

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have been examined and no significant difference in the clinical presentation and treatment rendered between cancer and non-cancer palliative patients have been elucidated.

## **BACKGROUND**

Palliative care is rapidly gaining prominence as an advancing specialized medical field in Malaysia and world over. According to WHO, Palliative care is an approach that improves the quality of life of patients and their families facing the problem associated with life-threatening illness, through the prevention and relief of suffering by means of early identification and impeccable assessment and treatment of pain and other problems, physical, psychosocial and spiritual.

The Palliative Care Unit (PCU) of Hospital Raja Permaisuri Bainun, Ipoh now has a total of 12 beds and a high turnover of inpatients. The Palliative Unit is headed by a Palliative Physician and has 4 resident Medical Officers. The ward is managed by one Nursing Sister and 15 trained and experienced registered staff nurses who work in shifts.

This study aims to analyze quantitatively if the Palliative Ward is meeting the objectives of WHO in keeping with national requirements in fulfilling its' role as a regional referral center for palliative, supportive and end of life inpatient care and international standards of care. This study was prompted due to the unavailability of study reports on patient demography, reasons for admission, treatment rendered, duration of admission and outcome of patients comparing cancer and non cancer diagnoses at the Palliative Ward, RPBH, Ipoh.

## **OBJECTIVES**

### **General Objective**

To analyze the patient demography, reasons for admission, treatment rendered, duration of admission and outcome of patients at the Palliative Ward, HRPB Ipoh.

### **Specific Objectives**

To describe categorically palliative patient demography, average duration of admission, reasons for admission (e.g. Pain, Dyspnoea ), treatment rendered (e.g. Pharmacological management, Other Interventions such as pain management) and outcome of patients (e.g. discharged home well or transferred out to the Palliative Ward of Hospital Batu Gajah for long term stay) as well as to compare the study analysis with previous years' studies for further reference of future studies.

## LITERATURE REVIEW

Numerous books, journals, articles and websites were studied prior to the topic selection. Amongst the most relevant to our topic of interest is the one given below which demonstrates how scientific evidence has helped policy makers shape the role of modern day Palliative Care practices around the globe :-

According to Evaluation of a palliative care service: problems and pitfalls by McWhinney, M J Bass, A Donner, *BMJ* 1994; 309 :1340 i, 'In designing evaluations of palliative care services, investigators should be prepared to deal with the following issues: attrition due to early death, opposition to randomisation by patients and referral sources, ethical problems raised by randomisation of dying patients, the appropriate timing of comparison points, and difficulties of collecting data from sick or exhausted patients and care givers. Investigators may choose to evaluate a service from various perspectives using different methods: controlled trials, qualitative studies, surveys, and studies. Randomised trials may prove to be impracticable for evaluation of palliative care.'

In reviewing the article 'Palliative care research: trading ethics for an evidence base by A Jubb, *J Med Ethics* 2002;28:6 342-346 doi:10.1136/jme.28.6.342ii, it can be inferred that 'Good medical practice requires evidence of effectiveness to address deficits in care, strive for further improvements, and justly apportion finite resources. Nevertheless, the potential of palliative care is still held back by a paucity of good evidence. These circumstances are largely attributable to perceived ethical challenges that allegedly distinguish dying patients as a special client class. In addition, practical limitations compromise the quality of evidence that can be obtained from empirical research on terminally ill subjects.

This critique aims to appraise the need for focused research, in order to develop clinical and policy decisions that will guide health care professionals in their care of dying patients. Weighted against this need are tenets that value the practical and ethical challenges of palliative care research as unique and insurmountable. The review concludes that, provided investigators compassionately apply ethical principles to their work, there is no justification for not endeavouring to improve the quality of palliative care through research.'

With reference to 'Using clinical study to promote evidence-based medicine and clinical effectiveness - an overview of one health authority's experience by Auplish, S. (1997), *Journal of Evaluation in Clinical Practice*, 3: 77-82. doi:10.1111/j.1365-2753.1997.tb00070. 'Health care purchasers are facing increasing pressure to make the best use of their limited resources and to purchase only those services known to be clinically effective. This paper describes one health authority's experience of promoting clinical effectiveness through clinical study and clinical guidelines. It highlights the central role of public health physicians in working closely with clinicians on the one hand and managers on the other, to promote evidence-based medicine. The recent changes in the funding arrangements for study have allowed purchasers to have more say in what should be studied, and link study and clinical effectiveness with contracts.'

The article 'Are There Differences in the Prevalence of Palliative Care-Related Problems in People Living With Advanced Cancer and Eight Non-Cancer Conditions? A Systematic Review. *Journal of Pain and Symptom Management*, by Moens K., Higginson I., Harding R., Brearley S., Caraceni A., Cohen J., Costantini M., Deliens L., Francke A., Kaasa S., Linden K., Meeussen K., Miccinesi G., Onwuteaka-Philipsen B., Pardon K. Pasman R. Pautex S., Payne S., & Vanden Block, L. (2014), *Journal of Pain and Symptom Management*, 48(4), 660- 677.iv reports that 'There are commonalities in the prevalence of problems across cancer and non-cancer patients, highlighting the need for palliative care to be provided irrespective of diagnosis. The methodological heterogeneity across studies and the lack of non-cancer studies need to be addressed in future research.'

From reviewing these articles, it can be inferred that there is an emerging need for periodic regional studying to help direct future policy makers towards further improving the Palliative care services regionally and thereby meeting the needs of the expanding population approaching end of life with chronic diseases. This study will make periodic analyzed data on the palliative care population requiring hospitalized care accessible and will then allow comparisons to be made to enable quantitative measures on the needs of the ever expanding palliative care population.

## **DEFINITION OF TERMS**

Palliative care – refers to an approach that improves the quality of life of patients and their families facing the problems associated with life threatening illness, through the prevention and relief of suffering by means of early identification and impeccable assessment and treatment of pain and other problems, physical, psychosocial and spiritual.

Pain Management – Patient are commenced on and titrated on a variety of NSAIDS, Opioids, Neuropathic agents to control pain as well as referred to the Anesthetic Pain Services (APS) Team in view of spinal or neural blocks to control severe cancer pain comprising somatic, visceral and neuropathic pain.

Terminal Discharge – refers to patients who are discharged for end of life at home on personal or family request when death is expected to occur within 48 hours.

To Come Again to Palliative Care Unit (TCA PCU) – Refers to an appointment given for the patient to be seen again at the Palliative Unit Clinic, HRPB, Ipoh.

Transfer Out To Hospital Batu Gajah –

Patients with poor social / family support and no carers to take care of patients upon discharge are usually offered the option of a long term placement at the Palliative Ward of Hospital Batu Gajah which is overseen by the Specialist of the Palliative Unit of HRPB, Ipoh.

The patients admitted there are cared for by a dedicated team of nurses and headed by a resident Medical Officer. Cost of long term care is borne by the Ministry of Health Malaysia.

## **METHODOLOGY**

This study was a retrospective cross-sectional study looking at admissions from January – June of 2017 at the Palliative ward at HRPB, Ipoh in comparison to the same periods in 2015 and 2014.

This study was conducted with data collection and keying in of data into an SPSS database from the ward's admission book and electronic patient information system or 'Sistem Pengurusan Pesakit' (SPP) retrospectively for the period of January to June 2017. The data was immediately keyed into a SPSS database employing anonymous decoding of all personal identifiers by separating the personal identifiers into a separate database (specifically Name, MRN and Coded Number). Data collected was compared to and analyzed to compare the findings between cancer and non-cancer patients receiving palliative care at the Palliative Ward for the period of January to June 2017. In addition, the data was also then analyzed with comparisons made to the data collected for the period of January to June 2014 during the course of the audit "A Study on Patient Admissions to the Palliative Ward of Hospital Raja Permaisuri Bainun, Ipoh for the period of January to June 2014" and to the audit "Review of Patient Admissions To The Palliative Ward Of A Regional Referral Hospital" which looked at admissions for the period of January to June 2015 for reasons for admission, treatment rendered, duration of admission, and outcome of patients at the Palliative Ward of Hospital Raja Permaisuri Bainun, Ipoh statistically using SPSS.

### **Study Population**

All Palliative patients admitted to the Palliative Unit at HRPB Ipoh who fulfill the inclusion criteria were included.

### **Sample size**

A universal sampling was done for patient admitted at HRPB Palliative Unit from January to June 2017 with comparisons made to data collected from all patients admitted to the Palliative Ward during January to June 2014 and January to June 2015.

### **Inclusion Criteria**

All in-patients at the Palliative Ward during the period of January to June 2017 (including patients who have passed away during the course of the relevant admission), with comparisons made to data collected from all patients admitted to the Palliative Ward during January to June 2014 and January to June 2015.

**Exclusion criteria**

- All day care patients at the Palliative Ward during the period of January to June 2017, 2015 and 2014.
- All lodgers at the Palliative Ward during the period of January to June 2017, 2015 and 2014.

**Data Collection**

This was a retrospective, cross sectional study comprising data collection and keying in of data into an SPSS database from the ward's admission book and electronic patient information system or 'Sistem Pengurusan Pesakit' (SPP) retrospectively for the period of January to June 2017 and keyed in into a SPSS database employing anonymous decoding of all personal identifiers by separating the personal identifiers into a separate database (specifically Name, MRN and Coded Number).

Data collected was compared to and analyzed to compare the findings between cancer and non-cancer patients receiving palliative care at the Palliative Ward for the period of January to June 2017. In addition, the data was also analyzed with comparisons made to the data collected for the period of January to June 2014 during the course of the audit "A Study on Patient Admissions to the Palliative Ward of Hospital Raja Permaisuri Bainun, Ipoh for the period of January to June 2014" and to "Review of Patient Admissions To The Palliative Ward Of A Regional Referral Hospital" which looked at admissions for the period of January to June 2015 for reasons for admission, treatment rendered, duration of admission, and outcome of patients at the Palliative Ward of Hospital Raja Permaisuri Bainun, Ipoh statistically using SPSS v19.

**ETHICAL CONSIDERATIONS**

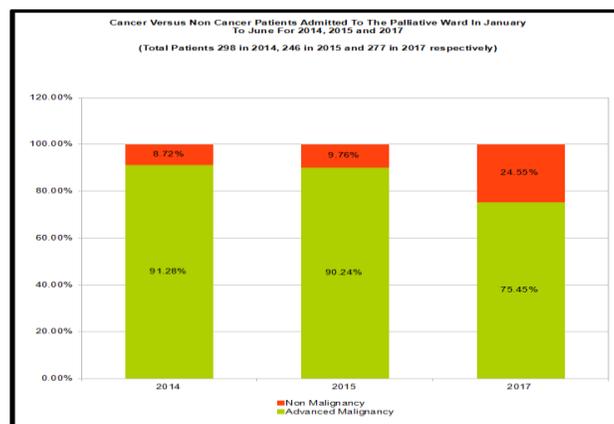
To ensure that this is in keeping with national and international standards of practice, NMRR and MREC approval is to be obtained prior to the study. Patient confidentiality was protected and not revealed in any part of the analysis, full report, presentation or publication. This was ensured by keying in the data collected into a SPSS database employing anonymous decoding of all personal identifiers by separating the personal identifiers into a separate database. The decoded personal identifiers were then destroyed at the end of the study to ensure anonymity of the study population and thus minimize breach in patient confidentiality.

**RESULTS**

A total of 821 admissions were included, 277 for the period of January to June 2017, with comparisons made to 246 and 298 admissions respectively for the same period in 2015 and 2014.

The study population comprised mainly of Chinese (63.09%), males (52.3%) were aged between 61 and 80 years old (54.5%) from Ipoh (56.1 %) who were admitted to the Palliative Ward of Raja Permaisuri Bainun Hospital, Ipoh.

A notable rise in the percentage of non-cancer patients in 2017 (24.55%) versus 8.72% in 2014 and 9.76% in 2015 which comprised Chronic Renal Failure (20.69%), Chronic Liver Failure (18.10%) and End Of Life Care (24.14%) was seen. However, patients with cancer predominated (85.66%) with Respiratory Malignancies (21.42%) followed by Gastrointestinal Malignancies (13.19%) and Breast Malignancies (12.06%).



*Chart 1: Breakdown of Cancer Versus Non Cancer Patients Admitted to The Palliative Ward of Raja Permaisuri Bainun Hospital for the Period of Study*

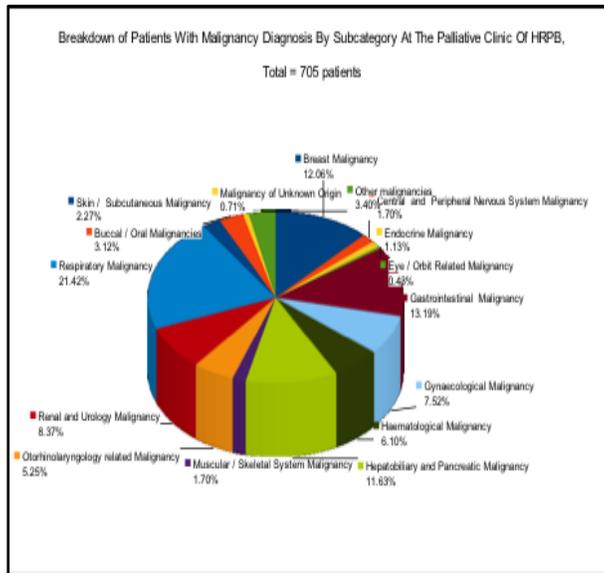


Chart 2 : Breakdown of Patients With Malignancy Diagnosis By Subcategory at the Palliative Ward, HRPB, Ipoh

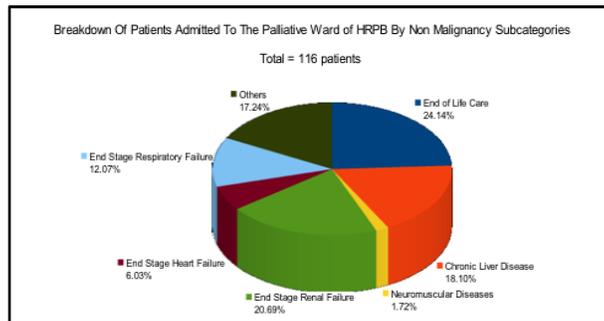


Chart 3 : Breakdown of Patients With Non-Malignancy Diagnosis By Subcategory at the Palliative Ward, HRPB, Ipoh.

The major presentings symptoms include Pain (26.31%), Dyspnea (21.56%) and Fever (10.23%). Some others additionally were admitted for Nausea and vomiting, Reduced consciousness, seizures or restlessness, Weakness or paresis, Metabolic disorders and End of life care amongst other causes for admission.

Of interest, Pain was more prevalent amongst cancer (32.48%) versus non-cancer patients (5.43%) but Dyspnea showed higher prevalence in non cancer patients (32.61% versus 20.42%).

The mainstay of pharmacological treatment was Opioid Therapy for 61.38% and Antibiotic administration (12.81%).

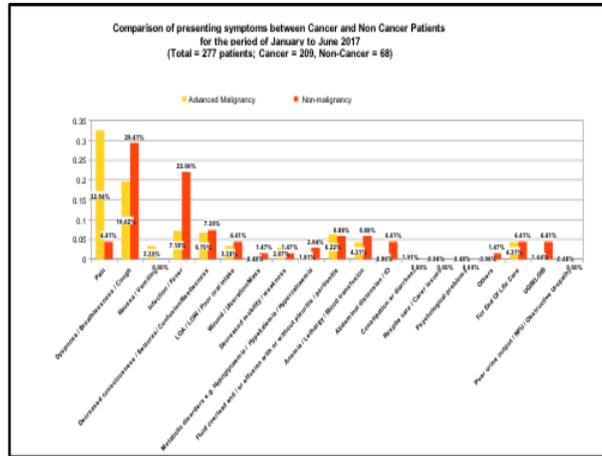


Chart 4 : Comparison Of Presenting Symptoms Between Cancer and Non-Cancer Patients for the period of January to June 2017

About half of the patients were admitted for 5 days or less (54.68%). 53.11% of patient were discharged home, while 34.47% passed away at the Palliative Ward. The remaining patients were transferred out to Palliative Ward Hospital Batu Gajah (6.33%) or were allowed terminal discharge home (6.09%).

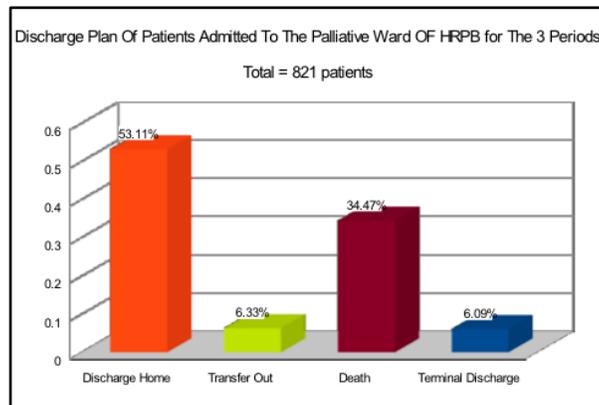


Chart 5 : Discharge Plan of Patients Admitted To The Palliative Ward Of Raja Permaisuri Bainun, Hospital For The 3 Periods Of The Study

## DISCUSSIONS

There appears to be a gradual rise in number of non cancer patients admitted to the Palliative Ward over the last few years. The notable rise seen in the percentage of non-cancer patients in 2017 (24.55%) versus 8.72% in 2014 and 9.76% in 2015 which comprised Chronic Renal Failure (20.69%), Chronic Liver Failure (18.10%) and End Of Life Care (24.14%) may be attributed to increasing awareness amongst the medical fraternity at large on the role of palliative care in this subgroup. The reasons for admissions have remained fairly constant over the three periods with no clinically significant difference in presenting clinical symptoms between cancer and non cancer patients observed in 2014 and 2015. However, in 2017, a p value of 0.002 was observed for this comparison likely due to the higher numbers of non-cancer patients and a constant con-comittant observation of higher incidences of pain amongst cancer patients and dyspnea amongst non-cancer patients.

Another noteworthy observation is the low and fairly constant rates of terminal discharge (average 17.7% of total dying patients which could be explained by the limited framework of community palliative support and services especially for non cancer patients and after hours coverage for both groups.

## CONCLUSION

The reasons for admissions to the palliative ward have been examined for a total of 821 patients for the period of January to June 2014, 2015 and 2017 and chart a gradual rise in non-cancer patients over the three periods which could be attributed to growing awareness on the needs of Palliative Care.

No constant significant difference in the clinical presentation between cancer and non-cancer palliative patients have been elucidated except for the difference in prevalence of Pain and Dyspnea which proved to be significant in 2017 where the percentage of non-cancer patients were also relatively higher.

The low rates of terminal discharge which point at limited community palliative care services drive home an important message on the need to expand and further develop community palliative care services in Ipoh and Perak; and may well be generalized to Malaysia at large.

**REFERENCES**

1. Amar Singh, Azman Abu Bakar, and Sondi Sararaks, (2008). The medical research handbook. 1st ed. Kuala Lumpur: Institute for Health Systems Research.
2. Who.int, (2014). WHO | WHO Definition of Palliative Care. [online] Available at: <http://www.who.int/cancer/palliative/definition/en/>
3. McWhinney, I, Bass, M. and Donner, A. (1994). Evaluation of a palliative care service: problems and pitfalls. *BMJ*, 309(6965), pp.1340--1342.
4. Jubb, A. (2002). Palliative care research: trading ethics for an evidence base. *Journal of medical ethics*, 28(6), pp.342--346.
5. Auplish, S. (1997). Using clinical study to promote evidence based medicine and clinical effectiveness—an overview of one health authority's experience. *Journal of evaluation in clinical practice*, 3(1), pp.77--82.
6. Hospital Raja Permaisuri Bainun (2015)., Palliative Ward Admission Registry 2015
7. Hospital Raja Permaisuri Bainun (2015)., Palliative Care Unit Discharge Summaries, Electronic Patient Information System version 3.1 (Sistem Pengurusan Pesakit / SPP versi 3.1, Palliative Care Unit Discharge Summaries).

**Sponsors / Declaration of Conflict of Interest:**

This study was self sponsored and no conflict of interest is declared.