

Evaluating the Impact of Biomedical Research Centre Affect Patient Care

L. Nottingham C and Carpenter T

Department of Epidemiology, The Fielding School of Public Health, University of California, Los Angeles (UCLA), Los Angeles, CA USA

***Corresponding Author:** Carpenter T, Department of Epidemiology, The Fielding School of Public Health, University of California, Los Angeles (UCLA), Los Angeles, CA USA

Citation: Evaluating the Impact of Biomedical Research Centre Affect Patient Care. Am J Pallia Med & Car. 2019; 1(1): 001-008.

Submitted: 11 May 2019; **Approved:** 27 May 2019; **Published:** 28 May 2019

Abstract

Background: Biomedical research can have impacts on patient care at research-active hospitals. We qualitatively evaluated the impact of the Oxford Biomedical Research Centre (Oxford BRC), a university-hospital partnership, on the effectiveness and efficiency of healthcare in local hospitals. Effectiveness and efficiency are conceptualised in terms of impacts perceived by clinicians on the quality, quantity and costs of patient care they deliver.

Methods: First, we reviewed documentation from Oxford BRC and literature on the impact of research activity on patient care. Second, we interviewed leaders of the Oxford BRC's research to identify the direct and indirect impacts they expected their activity would have on local hospitals. Third, this information was used to inform interviews with senior clinicians responsible for patient care at Oxford's acute hospitals to discover what impacts they observed from research generally and from Oxford BRC's research work specifically. We compared and contrasted the results from the two sets of interviews using a qualitative approach. Finally, we identified themes emerging from the senior clinicians' responses, and compared them with an existing taxonomy of mechanisms through which quality of healthcare may be affected in research-active settings.

Results: We were able to interview 17 research leaders at the Oxford BRC and 19 senior clinicians at Oxford's acute hospitals. The research leaders identified a wide range of beneficial impacts that they expected might be felt at local hospitals as a result of their research activity. They expected the impact of their research activity on patient care to be generally positive. The senior clinicians responsible for patient care at those hospitals presented a more mixed picture, identifying many positive impacts, but also a smaller number of negative impacts, from research activity, including that of the Oxford BRC. We found the existing taxonomy of benefit types to be helpful in organising the findings, and propose modifications to further improve its usefulness.

Conclusions: Impacts from research activity on the effectiveness and efficiency of patient care at the local acute hospitals, as perceived by senior clinicians, were more often beneficial than harmful. The Oxford BRC contributed to those impacts.

Keywords: Research activity, Hospitals, Patient care, Impact

INTRODUCTION

Improving the translation of scientific discoveries into health benefits for patients and the population in general has long been an aim of government policy in the United Kingdom and internationally. According to the Cooksey review of United Kingdom health research funding [1], there are two gaps in the translation of health research into practice: the

first is in translating basic and clinical research into the development of new products, technologies and approaches to the treatment of illness and health, and the second is in implementing these products, technologies and service approaches in clinical practice.

In England, direct manifestations of the policy aim to improve research translation have been the

Cite this article: Evaluating the Impact of Biomedical Research Centre Affect Patient Care. Am J Pallia Med & Car. 2019; 1(1): 001-008.

ment or overtreatment often occurred in the intensive care unit. The providers identified fears of litigation and the unrealistic expectations of family members as the main reasons for overtreatment. Providers also did not “blame families entirely for their unrealistic expectations” (Simmonds, p. 171), citing unrealistic providers and unclear communication between providers and families regarding the implications of treatment decisions as part of the reason families chose more aggressive treatment.

Other researchers examining the relationship-between seriously ill cancer patients’ predictions of their own prognosis and their treatment preferences found that patients’ beliefs about prognoses were associated with their treatment choices (Weeks et al., 1998). Patients were more optimistic about their 6-month survival than their physicians and were more likely to choose life-extending therapy over comfort care. The researchers suggested that enhanced communication between physicians and patients about prognosis would improve clinical care.

The need for improved communication among providers, patients, and families near the end of life of a patient is a common finding of several studies (Norton & Talerico, 2000; Tilden, Tolle, Garland, & Nelson, 1995; Wilson & Daley, 1999). Problems with communication regarding end-of-life decision making include lack of information, lack of access to providers, and lack of family inclusion in the process of decision making (Kayser-Jones, 1995). Problems with communication may make it difficult for patients or families to make informed choices and for providers to honor patients’ wishes.

Few researchers have explored how patient treatment decisions change over the course of an illness or how patients, families, and providers achieve agreement on treatment decisions. Tilden, Tolle, Nelson, Thompson, & Eggman (1999) described four typical phases that surrogate decision makers go through when coming to a decision to withdraw life support for their loved one: recognizing futility; coming to terms; shouldering the surrogate role; and facing the withdrawal question. Based on data from a 14-site participant observation study, Degner and Beaton (1987) described four patterns of control over the decision-making process: provider, patient, family, and jointly controlled. In provider and jointly controlled decision making, providers used both formal and informal strategies designed to influence patients’ or proxies’ decisions near the end of life.

More recently, Markson et al. (1997) reported that the vast majority (91%) of 653 physicians surveyed would attempt to persuade a patient to cha-

nge a decision assessed to be ill-informed, and most (88%) would attempt to persuade a patient to change a decision seen by providers as medically unreasonable or in conflict with that patient’s best interest.

Several researchers have examined how providers attempt to persuade the patient (Kayser-Jones, 1995; Sullivan, Hebert, Logan, O’Connor, & McNeely, 1996; Zussman, 1992). One group of researchers described how physician providers (n=14) attempted to frame the decisions regarding mechanical ventilation and intubation to patients with end-stage chronic obstructive pulmonary disease (COPD). All but one physician admitted to framing information presented to patients in such away as to influence the patient’s choice (Sullivan et al.).

The purpose of this study was to develop a grounded theory of how decisions were negotiated among providers and family members near the end of a patient’s life. During the development of the theory, Reconciling Decisions Near the End of Life, identification was made of several strategies providers used to assist patients and families to shift from curative to palliative treatment choices and goals. These strategies are the focus of this article.

Method

Following institutional review board approval, provider participants were recruited via a letter of invitation (which received a 60% positive response rate), and family members were recruited via church bulletins. The sample consisted of 20 participants (10 nurses, 5 physicians, and 5 family members) from a midsize Midwestern city. Only data from the nurse and physician participants are presented in this article. Of the 15 providers, 12 were women and 3 were men (see Table 1 for additional characteristics of the provider sample).

A grounded-theory research design was used for this study (Glaser, 1992; Glaser & Strauss, 1967; Strauss, 1987). There were 18 provider interviews. Each provider was interviewed once; three providers were interviewed a second time to facilitate member checks. All interviews, which were conducted at a time and place of participant convenience, were tape-recorded and transcribed verbatim. The first four interviews were conducted using open-ended questions and lasted 60–90 min. Later interviews lasted 30–60 min, with questions becoming increasingly focused on the evolving categories as data analysis progressed (see Table 2 for examples of early and later interview questions).

Consistent with a grounded theory research design, data were analyzed using open coding, constant comparative analysis, and axial coding (Glaser, 1992; Strauss, 1987). Dimensional analysis was

used as an adjunct data analysis tool. Dimensional analysis is a systematic inquiry into the “parts, attributes, interconnections, context, processes, and implications” of a phenomenon (Schatzman, 1991, p. 309). Following each interview, extensive analysis was done, theoretical questions were raised, and questions were developed for subsequent interviews.

Analysis of the first three interviews (all nurses) revealed that they engaged in a host of strategies that were directed at assessing how patients understand their situations. This included assessing whether the patient’s understanding was similar to that of the health care provider (e.g., whether it was “realistic” from the provider’s perspective) and whether decisions patients made seemed “reasonable” from the nurses’ perspectives. Analysis of these initial interviews also revealed that providers engaged in a host of strategies aimed at assisting patients in coming to a more realistic understanding of their situations and in making more reasonable decisions. Although these strategies could be viewed as paternalistic, they also offered an opportunity to explore these issues in greater depth. Subsequent interviews were designed to gain an understanding of what the providers were doing, what was directing their assessments as well as their efforts to alter patient perceptions, and whether these strategies changed over time.

Deliberate theoretical sampling of providers who did and did not engage in these strategies was not possible because there was no way to make this distinction before interviewing. Therefore, theoretical sampling was built into the design of the interviews. This was accomplished by adding questions to the interviews that would identify whether the provider participant engaged in such assessments and perspective-altering strategies and would explore how they understood these actions and what they were trying to accomplish.

Common to all those who described such strategies was a goal of either preventing a “bad death” or hoping to achieve a “good death.” Providers who were concerned about how realistic the patient’s understanding was described the relationship between the patient’s understanding, the decisions that resulted from that understanding, and the consequences of those decisions for the quality of their death.

This analysis raised the question of what these providers actually meant by the good death that they were trying to achieve and the bad death they were trying to avoid. Interview questions were altered to enhance understanding of these notions and to understand the relationship between being-

realistic and these two possible outcomes. Analysis of the subsequent interviews (as well as reanalyzing previous interviews) revealed that these providers had experiences with patients whose unrealistic understandings led to burdensome treatment decisions and thus to deaths with unnecessary pain, suffering, overly aggressive treatment, and unresolved family issues. At this point a theoretical decision was made to pursue an understanding of the processes of shifting goals and treatment decisions.

Subsequent theoretical sampling was designed to discover whether any predictable or patterned differences existed among provider types (e.g., nurses and physicians), work settings (e.g., acute or home care), and work experience (e.g., experienced or novice). It was hypothesized that these might explain which providers or what conditions were likely to result in a provider engaging in strategies to achieve a good death or avoid a bad one and which were not. Further exploration of this relationship in subsequent interviews suggested that experience with dying patients was common to providers who were concerned about and organized their strategies around quality of death. Experience itself, however, did not necessarily lead to such an approach. Additional theoretical sampling was done in order to provide some comparisons around length of experience as a health care provider and, in particular, with patients who were dying.

Several procedures were integrated into the methodological design of this study to maximize the credibility of the results (Guba & Lincoln, 1989; Strauss, 1987). All interviews were transcribed verbatim, checked for accuracy, and entered into a computer software program designed to assist qualitative data management (QSR NUD*IST 4, 1997). Memos and matrices were used to track the evolving theory and the methodological choices made by the researcher during the study. The principal researcher met weekly with a multi-disciplinary grounded theory dimensional analysis group. The researcher was engaged in data collection and analysis for 22 months, but the majority of the data was collected during the first 16 months. Analysis and member checks continued until the study was completed. Member checks were ongoing throughout the study and included second interviews with three provider participants (chosen for the breadth and depth of their experience), fieldwork, and interactive presentations of findings to small groups of providers similar to those who participated.

Results

This section begins with a brief synopsis of the grounded theory of reconciling decisions near the end of life (Norton, 1999), which provides the con-

Reconciling Decisions Near the End of Life

Health care providers often described knowing a patient's death was imminent before the patient or family knew. When these providers believed a patient's death was near, they shifted the purpose of their interventions toward helping the patient achieve a good death. With that in mind, providers worked toward changing patients' and families' treatment decisions from what providers believed were unrealistic curative choices to more realistic palliative choices. In this context, unrealistic decisions were those intended to cure, and realistic decisions were those intended solely to palliate symptoms or to forego curative treatments.

Providers reported that when patients or families continued to make unrealistic (curative) treatment decisions near the end of life, the patient would probably not experience a good death, possibly even having a bad one. A good death was characterized by all providers in a similar way as one that includes time to resolve personal business, time to reconnect with family, time to forgive and be forgiven, time to achieve important goals, and time to say good-bye to loved ones, while maintaining good pain and symptom control. A difficult or bad death was characterized by not being able to say good-bye; having unfinished business, unresolved conflict and anger, and difficulty grieving; undergoing futile treatment, creating bad memories for the family; and having poor symptom and pain control.

According to providers, changing the patient's or proxy's understanding, that is, their "big picture," to one in accord with the providers' assessment led the patient and family to realistic goals and thus to palliative treatment choices. From the providers' perspective, the big picture was a gestalt of the patient's condition constructed from information about the diagnosis, test results, prognosis, general assessment findings (including physical, emotional, and spiritual factors), treatment options, treatment efficacy, treatment burdens, and patient goals. This information, filtered through providers' knowledge, insights, and experience, formed providers' overall picture of what was going on with the patient. In this context it was the big picture, as perceived by providers, that determined whether goals and treatment decisions were realistic.

Providers expressed a belief that understanding the big picture would probably lead to realistic decisions that in turn would lead to a good death. On the other hand, lack of understanding or acceptance of the big picture increased the likelihood of making unrealistic treatment decisions that would result in unnecessary pain and suffering and in missed opportunities for a good death (e.g., not being able to say good-bye to loved ones). Providers often imput-

ed a lack of understanding and/or acceptance of the overall big picture as the cause of patients' or proxies' adherence to unrealistic goals. Unrealistic goals were goals that the patients could not achieve and/or that led to burdensome aggressive treatments that made it difficult, if not impossible, for patients to achieve a good death. One provider described a dying patient who wanted to continue chemotherapy:

This patient was described as having an angry and bitter death. The provider was frustrated by the patient's unwillingness to accept a realistic big picture and her continued adherence to curative treatment decisions. It is the provider big picture that providers said must be shared by patients and family members in order for them to make realistic decisions. Therefore, changing the patient's big picture became the focus of provider interactions.

Providers responded differently to perceived unrealistic patient or proxy goals. These responses included: (a) avoiding interactions with the patient and family, (b) referring the patient and family to another provider, and (c) using strategies aimed at shifting patients' unrealistic goals and treatment decisions to more realistic ones. Providers' often responded to unrealistic patient or proxy goals and decisions by using strategies to shift the patient or family picture, and to increase their understanding of what was happening. Early on these strategies were intended to "lay the groundwork" for a new picture. Laying the groundwork was typically followed by strategies focused on shifting the patient or family to a new picture. Finally, once a patient had shifted to a new, more realistic picture, provider strategies focused on helping the patient and the patient's family to accept and keep that realistic picture. Once a patient and family accepted a new picture, their treatment decisions were most likely to be palliative and thus more likely to ultimately result in a good death (Fig. 1). The individual strategies presented in the following sections are grouped under general purposes. However, most strategies were used for more than one purpose (e.g., teaching could be used to lay the groundwork, to shift the understanding of a patient or family toward the patient's picture, and/or to help the patient or family accept a new picture).

Providers' perspectives are presented here. The intent was not to imply that only one picture exists, that all providers share one picture, or even that there is such a thing as an accurate picture. Rather, the intent was to illustrate providers' behaviors when they conclude that the patient or proxy does not have an accurate big picture.

REFERENCES

1. Early Alzheimer’s Disease: Patterns of Functional MRI Activation-The Neural Substrates of Semantic Memory Deficits. Am J Bra Dis and Tum. 2018; 1(1): 001-010.

2. H Chahal, S W D Souza, A J Barson and P Slater. How to develop human brain using magnesium of N-methyl-D-aspartate receptors, Am J Bra Dis and Tum. 2018; 1(1): 001-005.

3. F S LaBella, et al. Concepts and correlations related to general anaesthesia and cytochrome P450 oxygenases. Am J Anest and Pai med. 2018; 1(1): 01-05.

4. Hazim J Safi, et al. The long term method with the elephant trunk for the repair of aortic aneurysms. Am J Anest and Pai med. 2018; 1(1): 001-008.

5. Yoshitaka Fujii, et al. Diaphragmatic Fatigue is treated with Inhaled Aminophylline Therapy in an Experimental Canine procedure. Am J Anest and Pai med. 2018; 1(1): 001-003.

6. O Demirkiran, et al. Complications in patients with Crush syndrome after the Marmara earthquake. Am J Anest and Pai med. 2018; 1(1): 001-005.

7. Qi Wei, et al. Laparoscopic choledochotomy after Biliary drainage: Study. Am J Anest and Pai med. 2018; 1(1): 001-007.

8. Mark Palazzo, et al. Unilateral Babinski/Plantar Reflex - Acute Inflammatory Demyelinating Polyneuropathy. Am J Anest and Pai med. 2018; 2(1): 01-02.

9. Hakan Alfredson, et al. Achilles and patellar tendon operations performed in local anesthesia, Am J Anest and Pai med. 2018; 1(1): 001-002.

10. Naemeh Nikvarz, et al. Evaluation The Analgesic Effect of Duloxetine Drug in Burn Patients. Am J Anest and Pai med. 2019; 2(1): 01-07.

11. Chuandong Zheng, et al. Intravascular Plaque: Cause for Radial Arterial Catheterization Failure. Am J Anest and Pai med. 2019; 2(1): 01-05.

12. Laura Tyler Perryman, et al. Wireless Dorsal Root Ganglion Stimulation: An Introduction and Early Experience with the New Approach for Chronic Pain Management. Am J Anest and Pai med. 2019; 2(1): 01-04.

13. Lazraq Mohamed, et al. Pediatric Pre-Anesthesia Consultation: What are Parents Expectations?. Am J Anest and Pai med. 2019; 2(1): 01-02.

14. Alaa Ali M. Elzohry, et al. Safety and Efficacy of Intraperitoneal Irrigation of Levo-Bupivacaine plus Morphine in Patients Undergoing Major Abdominal Cancer Surgeries. Am J Anest and Pai med. 2019; 2(1): 01- 07.

15. Yildiz K, et al. Comparison between Anesthesia Methods In Orthopaedics Initiatives of Upper Extremity. Am J Anest and Pai med. 2019; 2(2): 01-03.

16. Jianming Liu, et al. The Analgesic Effects Nalbuphine Hydrochloride Combined With Sufentanil for Patients after Thoracoscopic Lobectomy. Am J Anest and Pai med. 2019; 2(2): 01-03.

17. Fudong Shi, et al. The Patient Controlled Intravenous Analgesia of Dezocine on the Elderly Patients After Orthopedic Surgery. Am J Anest and Pai med. 2019; 2(1): 01-04.

18. GE Meglia, et al. Investigation in blood Leukocytes and Neutrophils in Periparturient Dairy Cow. Sci J of Ani and Vet Sci. 2018; 1(1): 001-009.

19. G E Duhamel, et al. DNA Sequence Analysis of an Immunogenic Glucose-Galactose Mglb. Sci J of Ani and Vet Sci. 2018; 1(1): 001-009.

20. David G. White, et al. Chloramphenicol and Florfenicol Resistance in Escherichia Coli of Characterization . Sci J of Ani and Vet Sci. 2018; 1(1): 001-006.

21. N B Alhaji, et al. Anophthalmia and Choanal Atresia In Two Months Old Kid. Sci J of Ani and Vet Sci. 2018; 1(1): 001-004.

22. Christopher W Olsen, et al. Isolation and Characterization of H4N6 Avian and Influenza Viruses. Sci J of Ani and Vet Sci. 2018; 1(1): 001-0025.

23. Teresa Lopez-Arteaga, et al. Apathy as a Psychiatric Manifestation of Meningioma. Am J Bra Dis and Tum. 2018; 1(1): 001-004.

24. David R Murdoch, et al. The Use of Brain Natriuretic Peptide- Whole Blood can be Measured, Am J Bra Dis and Tum. 2018; 1(1): 001-003.

25. Stefan Brocke, et al. Antibodies to Integrin α 4 and CD44, but not CD62L, Prevent CNS Inflammation and Experimental Encephalomyelitis by Blocking Secondary Leukocyte Recruitment. Am J Bra Dis and Tum. 2018; 1(1): 001-006.

26. Andrew J Saykin, et al. Early Alzheimer’s Disease: Patterns of Functional MRI Activation-The Neural Substrates of Semantic Memory Deficits. Am J Bra Dis and Tum. 2018; 1(1): 001-010.

27. P Slater, et al. How to develop human brain using magnesium of N-methyl-D-aspartate receptors, Am J Bra Dis and Tum. 2018; 1(1): 001-005.

28. Clyde W Hodge, et al. The Paraventricular Nucleus Interactively Modulate Ethanol Consumption -Norepinephrine and Serotonin Receptors, Am J Bra Dis and Tum. 2018; 1(1): 001-005.

29. Paulo C Carvalho, et al. Bioinformatics grid application in simple - Squid. Sci J Biome and Biost. 2018; 1(1): 001-004.

30. Mahmoud A E Abdelrahman, et al. On The New Exact Solutions for the Nonlinear Models Arising In Plasma Physics. Sci J Biome and Biost. 2018; 1(1): 001-004.

31. Weicheng Shen, et al. Based on Personal Identification- Automated Biometrics. Sci J Biome and Biost. 2018; 1(1): 001-002.

32. V Prasathkumar, et al. Fingerprint Biometric System - Using of Personal Authentication. Sci J Biome and Biost. 2018; 1(1): 001-003.

33. Savita Choudhary, et al. Software Development Environment : Design of Biometric Based Transaction System. Sci J Biome and Biost . 2018; 1(1): 001-003.

34. D J Lawrence, et al. Measuring the effectiveness in reliability and validity of a visual function outcomes instrument in cataract surgery. Sci J Biome and Biost. 2018; 1(1): 001-004.

35. Z Suvakovic, et al. Evaluation of early detection of gastric cancer requires more than gastroscopy. Anna of Can Ther and Phar. 2018; 1(1): 05.

36. Ho GY, et al. Informing and involving personalised computer based data for cancer patients. Anna of Can Ther and Phar. 2018; 1(1): 001-005.

37. Ray Jones, et al. Prostate Cancer Risk is associated with Polymorphism of Insulin gene. Anna of Can Ther and Phar. 2018; 1(1): 001-005.

38. Jean-Pierre J. Issa, et al. Role of DNA Methylation in Tumor Suppressor Gene Silencing in Colorectal Cancer. Anna of Can Ther and Phar. 2018; 1(1): 001-008.

39. Jules J Berman, et al. Histological classification of tumour and molecular analysis meets Aristotle. Anna of Can Ther and Phar. 2018; 1(1): 001-005.

40. Kafil Akhtar, et al. Tuberculosis of the Tongue with Coexistent Squamous Cell Carcinoma: An Interesting Case Presentation, Anna of Can Ther and Phar. 2018; 1(1): 001-002.

41. Serafin Morales Murillo, et al. Vitamin D as A Prognostic Factor in Triple Negative Breast Cancer. Anna of Can Ther and Phar. 2019; 2(1): 01-08.

42. Ahmet Fuat, et al. A Qualitative Study of Accurate Diagnosis and Effective Management of Heart Failure in Primary Care. Am J of Card and Cardiovas Disc. 2018; 1(1): 01-05.

43. Jesús Millán Núñez-Cortés, et al. Prescription Habits for Statins in Patients with Impaired Glucose Metabolism. Results of a program with Focus Groups to Assess the Selection Criteria. Am J of Card and Cardiovas Disc. 2019; 1(1): 01-04.

44. G D Kolovou, et al. Evaluation of Postprandial hyper

triglyceridaemia in patients withTangier disease. Am J of Card and Cardiovas Disc. 2018; 1(1): 01-04.

45. Brian O rourke, et al. Determination of The Mitochondrial Redox Waves and Subcellular Metabolic Transients in Heart Cells. Am J of Card and Cardiovas Disc. 2018; 1(1): 01-04.

46. Shuixiang Yang, et al. Radiofrequency Ablation Treating Atrial Fibrillation Can Reverse the Changes of Mirnas Regulating Ion Channel Proteins. Am J of Card and Cardiovas Disc. 2018; 1(1): 01-08.

47. Hadi abdulsalam Abo Aljadayel, et al. Penetrating War Cardiac and Great Vessels Injury, Surgical Outcome Analysis in 24 Patients. Am J of Card and Cardiovas Disc. 2018; 1(2): 01-05.

48. Hatice Yorulmaz, et al. Assessment of the Death Anxiety and Death Depression Levels of Cardiac Patients. Am J of Card and Cardiovas Disc. 2019; 2(1): 01-06.

49. Camara Abdoulaye, et al. Cardiomyopathie Du Peripartum Complicquee D'accident Vasculaire Cerebral Cas D'une Guinéenne De 19ans : Cas Clinique. Am J of Card and Cardiovas Disc. 2019; (1): 01-03.

50. Sergio F. Estrada-Orihuela, et al. Lasalocid, Interrupts and Reverses, Within One Minute, The Myocardial Damage Caused By Coronary Anoxia Reperfusion in Rat Heart. Am J of Card and Cardiovas Disc. 2019; (1): 01-05.

51. Jesus Millan Nunez-Cortes, et al. Prescription Habits for Statins in Patients with Impaired Glucose Metabolism. Results of a program with Focus Groups to Assess the Selection Criteria. Am J of Card and Cardiovas Disc. 2019; 1(1): 01-06.

52. Federico Cacciapuoti, et al. The Dilemma of Diastolic Heart Failure. Am J of Card and Cardiovas Disc. 2019; 1(1): 01-03.

53. Elad Boaz, Bowel Ischemia and Vascular Air-Fluid Levels. Anna Cas Rep and Ima Surg. 2018; 1(1): 001-00.

54. Sinisa Franjic, et al. A Patient With A Maxillofacial Problem. Anna Cas Rep and Ima Surg. 2018; 1(1): 001-004.

55. Davidson W, et al. Case Presentation: Hantavirus pulmonary syndrome [HPS]. Anna Cas Rep and Ima Surg. 2018; 1(1): 001-005.

56. Farid ZM, et al. Uropathy Secondary Chronic obstructive to Ureter Inguinal Herniation. Anna Cas Rep and Ima Surg. 2018; 1(1): 001-002.

57. De Letter DJ, et al. Cornual Molar Ectopic Pregnancy Diagnosis and Treatment. Anna Cas Rep and Ima Surg. 2018; 1(1): 001-003.

58. Ameni Touati, et al. Silver Russell Syndrome: Case Reports from North Africa and Review on The Literature. Anna Cas Rep and Ima Surg. 2019; 1(1): 001- 004.

59. Kunst WM, et al. Case Reports and Review of Spontaneous Rupture of Hyperreactive Malarial Splenomegaly [HMS]. Anna Cas Rep and Ima Surg. 2018; 1(1): 001-005.

60. F Hanefeld, et al. A Review of The Literature an Emerging Community Pathogen methicillin-Resistant Staphylococcus. Anna Cas Rep and Ima Surg. 2018; 1(1): 001-0011.

61. Page W Caufield, et al. Evidence for a Discrete Window of Infectivity. Am J Den and Ora Car. 2018; 1(1): 001-006.

62. Robert T Dirksen, et al. Dihydropyridine Receptors and Ryanodine Receptors: Bi-Directional Coupling . Am J Den and Ora Car. 2018; 1(1): 001-009.

63. IJ Jacobs, et al. Cancer and Intraepithelial Neoplasia-Tissue-specific apoptotic effects of the p53 codon 72 polymorphism . Am J Den and Ora Car. 2018; 1(1): 001-003.

64. Iain L C Chapple, et al. Human Immunodeficiency Virus disease in oral health significances. Am J Den and Ora Car. 2018; 1(1): 001-007.

65. H Larjava, et al. Activity of $\alpha\text{v}\beta\text{6}$ Integrin in Oral Leukoplakia. Am J Den and Ora Car. 2018; 1(1): 001-005.

66. Siddharth Kothari, et al. Effectiveness of Counselling and Home Care Self-Management Strategies in Reducing Mastatory Muscle Pain: A Review. Am J Den and Ora Car. 2019; 2(1): 001-007.

67. Betania Maria Soares, et al. Use of Blue LED and Curcumin for Photosensitization of Candida Albicans. Am J Den and Ora Car. 2019; 2(1): 001-005.

68. Jing Guo, et al. Advances in Methods of Maxillary Transverse Expansion. Am J Den and Ora Car. 2019; 2(1): 01-05.

69. Dario C. Altieri, et al. Cell division by p34cdc2 phosphorylation of survivin- Regulation . Sci J of Der and Ven. 2018; 1(1): 001-005.

70. Axel Trautmann, et al. Eczematous dermatitis: T cell and keratinocyte apoptosis plays a key pathogenetic . Sci J of Der and Ven. 2018; 1(1): 001-007.

71. JD Fine, et al. Epidermolysis bullosa Cardiomyopathy in inherited . Sci J of Der and Ven. 2018; 1(1): 001-004.

72. NE Fusenig, et al. Human Skin Angiogenic Switch Occurs Squamous Cell Carcinomas . Sci J of Der and Ven. 2018; 1(1): 001-007.

73. Tapani Tuomi, et al. Water- Damaged Building and Mycotoxins in Crude Building Materials. Sci J of Der and Ven. 2018; 1(1): 001-005.

74. John S Davies, et al. The Use of Social Media among Doctors Under taking a Post-Graduate Endocrinology Diploma. Sci J Endo and Meta. 2018; 1(1): 001-004.

75. Juan J Gagliardino, et al. By Short-Term Dietary Manipulation: The Endocrine Pancreas Activity of Tyrosine Hydroxylase. Sci J Endo and Meta. 2018; 1(1): 001-005.

76. Colin A. Leech, et al. The Glucose Dependent in Pancreatic β -Cells : Voltage-Independent Calcium Channels Mediate Slow Oscillations of Cytosolic CalciumPancreatic β -Cells. Sci J Endo and Meta. 2018; 1(1): 001-009.

77. Colin A. Leech, et al. The Voltage-Independent Activation of Inward Membrane Currents and Elevation of Intracellular Calcium in HIT-T15 Insulinoma CellsPituitary Adenylate Cyclase-Activating Polypeptide Induces. Sci J Endo and Meta. 2018; 1(1): 001-008.

78. Suhail AR Doi, et al. Making Use Of Combined Criteria - Diagnostic Criteria For Diabetes. Sci J Endo and Meta. 2018; 1(1): 001-006.

79. Maria I Borelli, et al. Effect Of Endogenous Islet Catecholamines Possible Modulatory On Insulin Secretion. Sci J Endo and Meta. 2018; 1(1): 001-005.

80. Louis Irwin, et al. Effect of exercise in combination with dietary nopal and zucchini on chronic and acute glucomeostasis in genetically obese mice. Inte J Expe Bio. 2018; 1(1): 001-005.

81. Vijaya Saradhi Settaluri, et al. Validation of Non Essential Amino Acids and Total Protein Content in Different Categories of Tea. Inte J Expe Bio. 2018; 1(1): 01-04.

82. Patrick D Craig, et al. T Antigen: Polyomavirus Middle of Natural Biology. Inte J Expe Bio. 2018; 1(1): 001-007.

83. Yoshinori Ohsumi, et al. The HIV Coreceptor CCR5 - Recycling and Endocytosis. Inte J Expe Bio. 2018; 1(1): 001-008.

84. Marino Zerial, et al. Elicitation of the Angiogenic Phenotype1: Transforming Myc Protein for In Vivo. Inte J Expe Bio. 2018; 1(1): 001-008.

85. Zhang Y, et al. Odorant Receptor In Mammali : The Caenorhabditis Elegans Seven-Transmembrane Protein ODR-10 Functions on Cells. Inte J Expe Bio. 2019; 1(1): 001-008.

86. Kazuo Maeda, et al. Improved Outcome with Novel Studies in Fetal Monitoring. Sci J of Gyne and Obste. 2019; 2(1): 001-004.

87. Sunil J. Wimalawansa, et al. Vitamin D Deficiency-Related Reproductive Consequences. Sci J of Gyne and Obste. 2019; 2(1): 001-006.

88. Munch A, et al. Investigation in blood Leukocytes and Neutrophils in Periparturient Dairy Cow. Sci J of Gas and Hepa. 2018; 1(1): 001-006.

89. Jie Song Hua, et al. Primary Helicobacter Pylori Resist

ance to Clarithromycin and Metronidazole in Singapore. *Sci J of Gas and Hepa*. 2018; 1(1): 001-003.

90. Paul Moayyedi, et al. A Systematic Review and Economic Analysis: Proton Pump Inhibitors in Nonulcer Dyspepsia Efficacy. *Sci J of Gas and Hepa*. 2018; 1(1): 001-003.

91. Zhen-Ning Wang, et al. Gastric Cancer: Collagen IV Expression and Biological Behavior. *Sci J of Gas and Hepa*. 2018; 1(1): 001-002.

92. Zhen-Ning Wang, et al. A Possible Pathophysiologic Contribution to Necrotizing Enterocolitis: Human Intestine Inflammation. *Sci J of Gas and Hepa*. 2018; 1(1): 001-006.

93. Paul M Wassarman, et al. Egg Interaction during Mammalian Fertilization in the Molecular Basis of Sperm. *Sci J of Gyne and Obste* 2018; 1(1): 001-006.

94. Mary Lou Moore, et al. Breastfeeding Benefits Support -Research. *Sci J of Gyne and Obste* 2018; 1(1): 001-002.

95. Pepita Gimenez-Bonafe, et al. Preservation of Fertility in Patients with Cancer. *Sci J of Gyne and Obste* 2018; 1(2): 001-006.

96. Yueyang F Fei, et al. Non-Hemorrhagic Unilateral Adrenal Infarct In Pregnancy: A Case Report. *Sci J of Gyne and Obste*. 2019; 1(1): 001-002.

97. Karen Pierre, et al. Protein-Energy Adequacy of Dialysis Patients in Trinidad and Tobago. *Am J of Nep and Ther*. 2018; 1(1): 01-05.

98. Balakrishna N, Tenckhoff Catheter Surgical under Local Anesthesia. *Am J of Nep and Ther*. 2018; 1(1): 001-003.

99. J T Ohlsson, et al. Man in angiotensin and noradrenaline inhibits the Endothelin. *Am J of Nep and Ther*. 2018; 1(1): 001-005.

100. David J, et al. Apoptosis and Ischemic Renal Injury Reduce the Guanosine Supplementation. *Am J of Nep and Ther*. 2018; 1(1): 001-005.

101. R W Baldeweg, et al. Tumor-induced osteomalacia : Cloning and characterization of Fibroblast Growth Factor 23. *Am J of Nep and Ther*. 2018; 1(1): 001-006.

102. Amitabh Arya, et al. Post Pyeloplasty Follow Up In Children And Adolescents: Diuretic Renography Or Renal Ultrasonography? *Am J of Nep and Ther*. 2019; 2(1): 001-005.

103. Amitabh Arya, et al. Post Pyeloplasty Follow Up In Children And Adolescents: Diuretic Renography Or Renal Ultrasonography? *Am J of Nep and Ther*. 2019; 2(1): 001-005.

104. Richard Lechtenberg, et al. Tau Interferon in Multiple Sclerosis. *Amer J Neur & Neurophysi*. 2018; 1(1): 001-002.

105. Eva Guy Rodriguez, et al. Discussion of the differential diagnosis of bilateral thalamic lesions-Bilateral thalamic infarcts due to occlusion of the Artery of Percheron. *Amer J Neur & Neurophysi*. 2018; 1(1): 001-004.

106. Yhashi Chang, et al. IVIg for Miller Fisher syndrome: Cerebral infarction. *Amer J Neur & Neurophysi*. 2018; 1(1): 001-002.

107. Fredrick J. Seil, et al. T cell responses to Myelin Antigens and Antimyelin Antibodies. *Amer J Neur & Neurophysi*. 2018; 1(1): 001-005.

108. Y Niimi, et al. Embolization of Spinal Cord AVMs: Neurophysiologic Provocative Testing. *Amer J Neur & Neurophysi*. 2018; 1(1): 001-002.

109. Ameni Touati, et al. Some Reducibility Results for Differentiable Sets. *Amer J Neur & Neurophysi*. 2019; 1(1): 001-005.

110. Chrisostomos Sofoudis, et al. Sofoudis C. Septic Abortion Accompanied with Disseminated Intravascular Coagulation and Acute Cardiomyopathy Presentation of a Rare Case and Mini Review. *Am J Nur & Pract*. 2018;1(1): 001-00.

111. Nick Jones, et al. Nurse Practitioners and Family Physicians Ethics Health Care Services. *Am J Nur & Pract*. 2018; 1(1): 001-005.

112. Thomas R A, et al. Human Infants Learning by Prenatal and Postnatal Flavor. *Am J Nur & Pract*. 2018; 1(1): 001- 006.

113. D. J Wise, et al. A Randomized, Double-Blind, Placebo-Controlled - Milk Production in Mothers of PremaTure Newborns Domperidone Drug effect. *Am J Nur & Pract*. 2018; 1(1): 001-005.

114. Bronagh Bufton, et al. Effects of Nursing Homes Ownership Compromise the Quality of Care. *Am J Nur & Pract*. 2018; 1(1): 001-005.

115. Kerstin Ekberg, et al. How Physicians Deal With the Task of Sickness Certification in Cause-Based and Comprehensive Disability Systems – A Scoping Review. *Am J Nur & Pract*. 2019; 2(1): 01-10.

116. Michael J. Vives, et al. Factors in Choosing the Surgical Approach: Cervical Spondylotic Myelopathy. *Am J Orth and Rhe*. 2018; 1(1): 001-004.

117. M. Runge, et al. Geriatric Patients in Balance Training and Exercise. *Am J Orth and Rhe*. 2018; 1(1): 001-003.

118. Ukoha Ukoha Ukoha, et al. Nutrient Foramina in Long Bones : Study. *Am J Orth and Rhe*. 2018; 1(1): 001-003.

119. Zhiquan An, et al. Human Humeral Diaphysis of the Nutrient Foramina : Anatomical Study : Study. *Am J Orth and Rhe*. 2018; 1(1): 001-007.

120. K-P Günther, et al. Hip Replacement in Rates: International Variation: Study. *Am J Orth and Rhe*. 2018; 1(1): 001-005.

121. Saeed Taj din, et al. Level of Physical Activity among Diabetic Patients of Rural and Urban Areas. *Am J Orth and Rhe*. 2019; 2(1): 001-004.

122. Carolina Caleza Jiménez, et al. Breastfeeding, Bed-Sharing and Early Childhood Caries. Is There An Association? A Review of the Literature. *Am J Pedi and Heal care*. 2018; 1(1): 001-004.

123. Katarzyna Niewiadomska-Jarosik, et al. Lipid Profile in Children Born As Small for Gestational Age. *Am J Pedi and Heal care* 2018; 2(1): 01-03.

124. Mustafa Aydin, et al. Antibiotic Susceptibility Pattern and Clinical Features of Klebsiella Sepsis in Newborn Infants. *Am J Pedi and Heal care* 2019; 1(1): 01-04.

125. H Dele Davies, et al. Necrotizing Fasciitis- Flesh-Eating Bacteria Disease. *Am J Pedi and Heal care* 2019; 1(1): 01-06.

126. Marie Westwood, et al. The diagnosis of urinary tract infection (UTI) in children under five years: Rapid tests and urine sampling techniques. *Am J Pedi and Heal care* 2019; 1(1): 01-09.

127. Folkert Fehr, et al. What Entrustable Professional Activities Add To a Primary Care Residency Curriculum. *Am J Pedi and Heal care* 2019; 2(1): 01-06.

128. Sonya Martin, et al. Spatially Modulated Illumination Microscopy measures the size of Biological Nanostructures. *Ann of Phar Nano Tech and Nanomedi*. 2018; 1(1): 01-05.

129. Sonya Martin, et al. Genetic analysis of Fis interactions with their binding sites. *Ann of Phar Nano Tech and Nanomedi*. 2018; 1(1): 01-07.

130. John H Reif, et al. Nucleation assembly of DNA tile complexes is directed by barcode-patterned lattices. *Ann of Phar Nano Tech and Nanomedi*. 2018; 1(1): 01-07.

131. Thomas H LaBean, et al. Self assembly of DNA nanotubes from triple-crossover tiles as templates for conductive nanowires. *Ann of Phar Nano Tech and Nanomedi*. 2018; 1(1): 01-05.

132. Ulrich Kettling, et al. Dual-Photon Fluorescence Coincidence Analysis: Rapid quantification of Enzyme activity. *Ann of Phar Nano Tech and Nanomedi*. 2018; 1(1): 01-05.

133. Ahmed R. Gardouh, et al. Design, Optimization and In-Vitro Evaluation of Antifungal Activity of Nanostructured Lipid Carriers of Tolnaftate *Ann of Phar Nano Tech and Nanomedi*. 2019; 2(1): 01-05.

134. Mohammed Khalid, et al. Khalid M. Predictors of Prognosis in Pulmonary Hypertension. *Anna Pul and Crit Car Med*.

- 2018; 1(1): 001-004.
135. Abdullah Alsaedi, et al. The Prevalence of Smoking among sample of Kuwait Asthmatics and its impact on the response of the treatment, Anna Pul and Crit Car Med. 2018; 1(2): 001-002.
 136. Nicolau Beckmann, et al. Resolving the Oedematous Signals Induced by OVA Challenge in the Lungs of Actively Sensitised Rats. Anna Pul and Crit Car Med.. 2018; 1(1): 01-06.
 137. Thomas J walsh, et al. Investigate the performance of non-invasive diagnostic tests such as galactomannan enzyme immunoassay and quantitative Caspofungin in the early diagnosis of invasive aspergillosis (IA). Anna Pul and Crit Car Med.. 2018; 1(1): 01-06.
 138. Charles B. Huddleston, et al. Lung Transplantation in pediatrics. Anna Pul and Crit Car Med.. 2018; 1(1): 01-05.
 139. Jeffrey P. Lamont, et al. Comparision of valved vs non-valved implantable ports for vascular access:A randomized tri-al. Anna Pul and Crit Car Med.. 2018; 1(1): 01-03.
 140. D Inwald, et al. Risk and relevance of open lung biopsy in Nonneonatal extracorporeal membrane oxygenation (ECMO) patients. Anna Pul and Crit Car Med.. 2018; 1(1): 01-04.
 141. Guillaume Mortamet, et al. Does Esophageal Pressure Monitoring Reliably Permit To Estimate Trans pulmonary Pressure In Children?. Anna Pul and Crit Car Med.. 2018; 2(2): 01-05.
 142. Yang Jin, et al. Extracellular Vesicle-Shuttling MicroRNAs Regulate the Development of Inflammatory Lung Responses. Anna Pul and Crit Car Med.. 2018; 1(2): 01-04.
 143. Nicola Clemente, et al. Pneumonectomy As A Salvage Therapy: A Rare Indication For A Gastric Malt Lymphoma Disseminated To The Lung. Anna Pul and Crit Car Med.. 2018; 1(2): 01-04.
 144. Nicola Clemente, et al. Pneumonectomy As A Salvage Therapy: A Rare Indication For A Gastric Malt Lymphoma Disseminated To The Lung. Anna Pul and Crit Car Med.. 2018; 1(2): 01-04.
 145. Victor Chew, et al. Pulmonary Cement Embolism. Anna Pul and Crit Car Med. 2019; 2(1): 01-02.
 146. Victor Chew, et al. An Unusual Cause of a Tension Pneumothorax. Anna Pul and Crit Car Med. 2019; 2(1): 01-03.
 147. Mark C. Lavigne, et al. A Performance Summary of Agents Used in Oral Care for Non-Ventilated and Mechanically-Ventilated Patients. Anna Pul and Crit Car Med. 2019; 2(2): 01-34.
 148. Elisangela Hermes, et al. Psychomotricity in Vestibular Dysfunction Therapy (VDT): A Collective Health Question. Am J Rhin and Otol. 2018; 1(1): 001- 005.
 149. Ramtej J Verma, et al. Diethanolamine-Induced Hepatic Injury and Its Amelioration by Curcumin. Am J Toxi and Res. 2018; 1(1): 001-004.
 150. Chee Kong Yap, et al. A Preliminary Screening of Cd and Pb Concentrations in the Some Traditional Chinese Herbal Medicines Bought From Selected Shops in Peninsular Malaysia. Am J Toxi & Res. 2018; 1(1): 001-004.
 151. Geza Bozoky, et al. Acute Silent Non-Massive (submassive) Pulmonary Embolism. Am J Ang and Surg . 2018; 1(1): 001-003.
 152. Muhammad Imran Qadir, et al. Is Hunting Lovering Associates with Pulse Rate. Am J of Viro and Dis. 2019; 1(1): 01.
 153. Mujahid Rasheed, et al. Relation of Blood Group with Motion Sickness. Am J of Viro and Dis. 2019; 1(1): 02.
 154. Mujahid Rasheed, et al. Views of University Paramedical Students about Causes of Pharyngitis, Its Transmission and Medicinal Control. Am J of Viro and Dis. 2019; 1(1): 02.
 155. Kainat Rafaqat, et al. Views of University Paramedical Students about Causes of Pharyngitis, Its Transmission and Medicinal Control. Am J of Viro and Dis. 2019; 1(1): 02.
 156. Sajid Ullah, et al. HCV Prevalence in the Volunteer Blood Donors in District Bajaur Khyber Pakhtunkhwa Pakistan. Am J of Viro and Dis. 2019; 1(1): 02.
 157. Rabbia Aslam, Analogue of Breathing With Lizard Fright Am J of Viro and Dis. 2019; 1(1): 01.
 158. Hurain Shaukat, et al. Linkage of Body Temperature with Exercise Am J of Viro and Dis. 2019; 1(1): 01.
 159. Mariyam Javed, et al. How Breathe Rate Relates With Cricket Likeness? Am J of Viro and Dis. 2019; 1(1): 02.
 160. Hakan Alfredson, et al. Achilles and patellar tendon operations performed in local anesthesia, Am J Anest and Pai med. 2018; 1(1): 001-002.
 161. Richard Lechtenberg, et al. Tau Interferon in Multiple Sclerosis. Amer J Neur & Neurophysi. 2018; 1(1): 001-002.

Cite this article: Evaluating the Impact of Biomedical Research Centre Affect Patient Care. Am J Pallia Med & Car. 2019; 1(1): 001-008.