

39. Bahiah AS, Murphy JF, Sharidan HE. Fetal distress in labor and caesarian section rate. Bahrain Medical Bulletin. 2010 //;32(2).

Objective: To estimate the relationship between fetal distress in labor and the rate of Caesarian section. Design: Retrospective study. Setting: Obstetrics and Gynecology Department at Bahrain Defense Force Hospital. Method: Emergency Caesarian sections due to fetal distress (235) performed between the 1st January 2008 to 30th June 2009 were reviewed. The major indications and the immediate causes for Caesarian section were identified. We assessed the baby outcomes by the measurement of Apgar score, neonatal intensive care admission and the need for intubation. Result: Two hundred thirty-five emergency caesarian section were performed out of one thousand two hundred and forty five (1245) mothers were delivered by caesarian section. Total deliveries in the same period was 5945; The caesarian section rate was 21%. The two main indications for Caesarian sections were: previous Caesarian section 337 (27%) followed by fetal distress 235 (19%), out of which 51 were performed prior to labor and 184 in labor. Indicators of fetal distress, in labor was as follows: 22 (12%) mothers had thick meconium, non reactive CTG in 9 (5%) mothers, fetal heart deceleration in 1 (0.54%), abruptio placenta in labor in 11 (6%), and other abnormal CTG findings not classified in 141 patients (77%). Hundred and nineteen (50.6%) were primigravida out of 235 mothers delivered by Caesarian section due to fetal distress, of which 97 mothers were in labor. Seven of 186 neonates (3.8%) had a low Apgar score (Apgar score ≤ 7 at 5 minutes). Of these 7 neonates, one required intubation and was admitted to the neonatal intensive care unit. Conclusion: The Caesarian section rate in Bahrain Defense Force Hospital was high. The main reason for Caesarian sections was previous Caesarian section followed by fetal distress. The use of an objective assessment of fetal hypoxia would have lowered the rate of Caesarian delivery.

40. Doody MA, Hastings RP, O'Neill S, Grey IM. Sibling relationships in adults who have siblings with or without intellectual disabilities. Research in Developmental Disabilities. 2010 //;31(1):224-31.

There is relatively little research on the relationships between adults with intellectual disability and their siblings, despite the potential importance of these relationships for either individual's psychological well-being and future care roles that might be adopted by adult siblings. In the present study, sibling relationships of adults with adult siblings with (N = 63) and without (N = 123) intellectual disability were explored. Contact, warmth, conflict, and rivalry were measured using questionnaires available as an on-line survey. Expressed emotion was measured using the Five Minute Speech Sample over the telephone to establish an independently coded measure of criticism from the participant towards their sibling. Overall, there were few group differences in contact and sibling relationship. There was less telephone contact in the intellectual disability group, and less reported warmth in the relationship with siblings with intellectual disability although this was mainly associated with severe/profound intellectual disability. Exploratory analyses were conducted of the correlates of sibling relationships in both the intellectual disability and control groups. These analyses revealed a small number of different associations especially for conflict, which was lower when either the participant or sibling was younger in the control group but associated with relative age in the intellectual disability group. © 2009 Elsevier Ltd. All rights reserved.

41. Garadah TS, Kassab S, Mahdi N, Abu-Taleb A, Jamsheer A. Pulsed and tissue Doppler echocardiographic changes in patients with Thalassemia major. Clinical Medicine Insights: Blood Disorders. 2010 //;3:1-8.

Background: Doppler echocardiographic studies of left ventricle (LV) systolic and diastolic function in patients with β -Thalassemia Major (β -TM) had shown different patterns of systolic and diastolic dysfunction. Aim: This cross-sectional study was designed to study the LV systolic and diastolic function in patients with β -TM using Pulsed Doppler (PD) and Tissue Doppler (TD) echocardiography. Methods: All patients were evaluated clinically and by echocardiography. The study included patients with β -TM (n = 38, age 15.7 ± 8.9 years) compared with an age-matched control group (n = 38, age 15.9 ± 8.9 years). The pulse Doppler indices were normalized for age and heart rate. Results: Compared with control patients, M-Mode showed that patients with β -TM have thicker LV septal wall index (0.659 ± 0.23 vs. 0.446 ± 0.219 cm, $P < 0.001$), posterior wall index (0.659 ± 0.235 vs. 0.437 ± 0.214 cm, $P < 0.01$), and larger LVEDD index is (3.99 ± 0.48 vs. 2.170 ± 0.57 mm, $P = 0.035$). Pulsed Doppler showed high LV trans-mitral E wave velocity (70.818 ± 10.139 vs. 57.532 ± 10.139 , $p = 0.027$) and E/A ratio (1.54 vs. 1.23 , $P < 0.01$). The duration of Deceleration time (DT) and isovolumic relaxation time (IVRT) were significantly shorter in patients with β -TM (150.234 ± 20.023 vs. 167.123 ± 19.143 msec, $P < 0.01$) and (60.647 ± 6.77 vs. 75.474 ± 5.83 msec, $P < 0.001$), respectively. The ratio of transmitral E wave velocity to the tissue Doppler E wave at the basal septal mitral annulus E/Em- was significantly higher in β -TM group (14.024 ± 2.29 vs. 12.132 ± 1.82 , $P < 0.01$). The Tissue Doppler systolic velocity (Sm) and the early diastolic velocity (Em) were significantly lower in β -TM group compared to control (4.31 ± 1.2 cm/s vs. 6.95 ± 2.1 , $P < 0.01$ and 4.31 ± 2.7 cm/s vs. 5.82 ± 2.5 , $P < 0.01$) respectively. The tricuspid valve velocity was significantly higher than controls (2.993 ± 0.569 vs. 1.93 ± 0.471 m/sec, respectively, $P < 0.01$). However, the LVEF% and fractional shortening

were normal with no significant difference in both groups. Conclusion: In this study, patients with β -thalassemia major compared with controls, have significantly thicker LV wall, and larger LV cavity and LV diastolic filling indices suggestive of restrictive pattern with a higher tricuspid valve velocity. These data showed that left ventricle diastolic indices are compromised initially in patients with β -thalassemia major. © the authors.

42. Garadah TS, Kassab S, Mahdi N, Abu-Taleb A, Jamsheer A. QTc interval and QT dispersion in patients with Thalassemia major: Electrocardiographic (EKG) and echocardiographic evaluation. Clinical Medicine Insights: Cardiology. 2010 //;4:31-7.

Background: Doppler echocardiographic studies in patients with β -Thalassemia Major (β -TM) had shown different patterns of left ventricle (LV) systolic and diastolic dysfunctions. Aim: This cross-sectional study was designed to study the LV systolic and diastolic function in patients with β -TM using Pulsed Doppler (PD) Echocardiogram and assess the QTc interval and QT dispersion (QTd) on 12 leads ECG. Method: All patients were evaluated clinically as well as by echocardiography and 12 leads ECG. The study included patients with β -TM (n = 38, age 15.7 ± 8.9 years), compared with an age-matched healthy control group (n = 38, age 15.9 ± 8.9 years). Results: In 38 patients with β -TM Compared with healthy control group, The QTc interval and the QTd dispersion on ECG were increased with no significant difference mode echo showed that β -TM patients have thicker LV septal wall index (0.659 ± 0.23 vs. 0.446 ± 0.219 cm/M2, $P < 0.001$), posterior wall index (0.659 ± 0.235 vs. 0.437 ± 0.214 cm/M2, $P < 0.01$), and larger LVEDD index is (3.99 ± 0.48 vs. 2.170 ± 0.57 cm/M2. $P < 0.05$). Pulsed Doppler showed high LV trans-mitral E wave velocity index (70.818 ± 10.139 vs. 57.532 ± 10.139 , $P < 0.05$) and E/A ratio (1.54 vs. 1.23 , $P < 0.01$). The duration of deceleration time index (DT) and isovolumic relaxation time index (IVRT) were significantly shorter in patients with β -TM (150.234 ± 20.023 vs. 167.123 ± 167.123 msec/ M2, $P < 0.01$) and (60.647 ± 6.77 vs. 75.474 ± 5.83 msec/M2, $P < 0.001$), respectively. The tricuspid valve velocity in patients with β -TM was significantly higher than controls (2.993 ± 0.569 vs. 1.93 ± 0.471 m/sec, respectively, $P < 0.01$), with calculated pulmonary artery pressure of 2.4 times the control (36.0 vs. 14.8 mmHg). However, the LVEF% or fractional shortening were not significantly different. Conclusion: In this study, β -thalassemia major patients compared with controls have differences of QT dispersion and corrected QT interval that is of no statistical significance. A significantly thicker LV wall and LV diastolic filling indices are suggestive of restrictive diastolic pattern. These data indicate that LV diastolic abnormalities compromised initially in patients with β -thalassemia major. © the authors.

43. Garadah TS, Mahdi N, Kassab S, Shoroqi IA, Abu-Taleb A, Jamsheer A. The pro-BNP serum level and echocardiographic tissue doppler abnormalities in patients with beta Thalassemia Major. Clinical Medicine Insights: Cardiology. 2010 //;4:135-41.

Background: Doppler echocardiographic studies of the left ventricle (LV) function in patients with β -Thalassemia Major (β -TM) had shown different patterns of systolic and diastolic dysfunctions associated with abnormal serum brain natriuretic peptide (BNP). Aim: This cross-sectional study was designed to study the LV systolic and diastolic functions and correlate that with serum level of N-terminal pro brain natriuretic hormone (NT- pro BNP) in patients with β -TM using Pulsed Doppler (PD) and Tissue Doppler (TD) echocardiography. Methods: The study was conducted on patients with β -TM (n = 38, age 15.7 ± 8.9 years) and compared with an age-matched controls (n = 38, age 15.9 ± 8.9 years). In all participants, PD and TD echocardiography were performed and blood samples were withdrawn for measuring the serum level of NT-pro BNP, ferritin, and alanine transaminase. Results: Patients with β -TM compared with controls, have thicker LV septal wall index (0.65 ± 0.26 vs. 0.44 ± 0.21 cm, $P \leq 0.001$), posterior wall index (0.65 ± 0.23 vs. 0.43 ± 0.21 cm, $P \leq 0.01$), and larger LVEDD index (4.35 ± 0.69 vs. 3.88 ± 0.153 mm, $P \leq 0.001$). In addition, β -TM patients have higher transmitral E wave velocity (E) (70.818 ± 10.139 vs. 57.532 ± 10.139 , $p = 0.027$) and E/A ratio (1.54 ± 0.17 vs. 1.23 ± 0.19 , $P \leq 0.01$) and shorter deceleration time (DT) (160.13 ± 13.3 vs. 170.50 ± 19.20 m sec, $P \leq 0.01$). Furthermore, the ratio of transmitral E wave velocity to the tissue Doppler E wave at the basal septal mitral annulus (E/Em-) was significantly higher in β -TM group (19.6 ± 2.81 vs. 13.868 ± 1.41 , $P \leq 0.05$). The tissue doppler systolic wave (Sm) velocity and the early diastolic wave (Em) were significantly lower in β -TM group compared to controls (Sm: 4.82 ± 1.2 vs. 6.22 ± 2.1 mm/sec, $P \leq 0.05$; Em: 3.51 ± 2.7 vs. 4.12 ± 2.5 mm/sec $P \leq 0.05$, respectively). The tricuspid valve velocity was significantly higher in β -TM patients compared with controls (2.993 ± 0.569 vs. 1.93 ± 0.471 m/sec, respectively, $P \leq 0.01$). The mean serum NT pro-BNP in β -TM was significantly higher compared with controls (37.6 ± 14.73 vs. 5.5 ± 5.4 pg/ml, $P \leq 0.05$). The left ventricle ejection fraction (EF%) and fractional shortening (FS%) were not significantly different between both groups. Conclusion: We conclude that patients with β -TM had a significantly higher serum level of NT-pro BNP that is positively correlated with the E/Em ratio on tissue Doppler. Furthermore, we confirm our previous findings that patients with β -TM exhibit LV diastolic pattern on echocardiogram suggestive of restrictive type with well preserved left ventricle systolic function. © the author(s), publisher and licensee Libertas Academica Ltd.

44. Grey I, Bradley S, McClean B. Patterns of autism diagnostic assessment in Ireland. Irish Journal of Psychology. 2010 //;31(1-2):27-42.

A retrospective analysis was carried out on the diagnostic assessments of 67 children with an Autism Spectrum Disorder (ASD), in order to (1) examine the use of assessment instruments used to diagnose autism and whether they reflect the critical domain areas requiring assessment, (2) evaluate whether the information reported in initial assessments is such that they will facilitate subsequent evaluation of progress across developmental domains, and (3) examine the nature and type of interventions recommended. Results indicated that over one-quarter of all assessments did not include a measure of adaptive functioning and almost one-third did not include a measure of intellectual functioning. Furthermore, a substantial number of assessments did not provide enough information to evaluate progress after diagnosis across these domains. Results also suggest that children with autism rarely receive a follow-up assessment following diagnosis. The most common recommendations in relation to intervention were placement in an Early intensive Behavioural Intervention programme (EIBI) and input from a multidisciplinary team. However, less than one third of assessments recommended the development of an individual Education Plan. Results are discussed in the context of the role of psychological assessment and intervention for children with an ASD in the Republic of Ireland. © 2010 by The Psychological Society of Ireland.

45. Grey I, Lynn E, McClean B. Parents of children with autism: Experiences of education service provision in the Republic of Ireland. Irish Journal of Psychology. 2010 //;31(3-4):111-24.

This is an exploratory study into parents' experiences of educational approaches for their children with autism. Fourteen interviews took place, seven with parents whose children were attending a school which provided Early Intensive Behavioural Intervention (EIBI) and seven with parents whose children were receiving typical statutory education provision in a special class for children with autism attached to a mainstream school, in line with current Department of Education and Science guidelines, this class adopted an eclectic mix of approaches. Thematic analysis of responses from a 30-item interview generated six themes: Availability of resources; assessment; communication; staff training and qualification; inclusion and mainstreaming; and parent experiences and roles. Responses pointed to a disparity in parental experiences regarding the provision of educational services between the ABA and non-ABA school with parents reporting greater overall satisfaction with the ABA school. © 2010 by The Psychological Society of Ireland.

46. Grey I, Pollard J, McClean B, Macauley N, Hastings R. Prevalence of psychiatric diagnoses and challenging behaviors in a community-based population of adults with intellectual disability. Journal of Mental Health Research in Intellectual Disabilities. 2010 //;3(4):210-22.

Previous research has suggested substantial variation in prevalence rates of psychiatric disorders in individuals with intellectual disability (ID) and also differential patterns of associations between psychiatric disorders and challenging behaviors in people with ID. The aim of this study was to determine the prevalence rate of specific psychiatric disorders and challenging behaviors and the relationship between them in a community-based sample of individuals with ID. A community-based sample of 159 adults primarily with mild and moderate ID was surveyed for the presence of psychiatric disorders and challenging behaviors using the Behavior Problem Inventory and the Psychiatric Assessment Schedule (PAS-ADD). Individuals who met threshold on the PAS-ADD were subsequently evaluated using the Mini PAS-ADD Interview. Screening for psychiatric disorders using the PAS-ADD indicated a prevalence rate of 10%. There was a large discrepancy between the overall rate of challenging behaviors (45%) and the rate of psychiatric disorders identified by the Mini PAS-ADD Interview (6%). However, the rate of more severe behavior problems (8%) was closer to the rate of psychiatric disorders (6%). Thirty-one percent of people with severe challenging behaviors also were rated as having psychiatric disorders and odd ratio analysis indicates that individuals with severe challenging behaviors are substantially more likely to present with a psychiatric disorder. However, the relationship between different topographies of challenging behaviors and discrete diagnostic categories of psychiatric disorders appears to be unclear. This study reports a low prevalence of psychiatric disorders in a community-based population. The presence of severe challenging behaviors appears to have some association with psychiatric disorders but does not appear specific to discrete diagnostic categories. Clinicians and researchers need to debate the validity of considering challenging behaviors atypical manifestations of psychiatric disorders. © Taylor & Francis Group, LLC.

47. Hamdy H, Telmesani AW, Al Wardy N, Abdel-Khalek N, Carruthers G, Hassan F, et al. Undergraduate medical education in the Gulf Cooperation Council: A multi-countries study (Part 1). Medical Teacher. 2010 //;32(3):219-24.

Background: The Gulf Cooperation Council (GCC) countries have witnessed over the last 40 years a rapid and major social, cultural, and economic transformation. The development of medical education in the region is

relatively new, dating from the late 1960s. An important goal among the medical colleges in the region is to graduate national physicians who can populate the healthcare service of each country. Aim: The aim of this study is to provide understanding of undergraduate medical education in each of the six GCC countries and the challenges that each face. Methods: This is a descriptive cross-sectional study. Fourteen senior medical faculty were requested to submit information about undergraduate medical education in their own countries, focusing on its historical background, student selection, curriculum, faculty, and challenges. Results: The information provided was about 27 medical colleges: 16 from the Kingdom of Saudi Arabia (KSA), five from the United Arab Emirates (UAE), two from the Kingdom of Bahrain, two from Sultanate of Oman, one from Kuwait, and one from the State of Qatar. It was found that older colleges are reviewing their curriculum while new colleges are developing their programs following current trends in medical education, particularly problem-based learning and integrated curricula. The programs as described 'on paper' look good but what needs to be evaluated is the curriculum 'in action'. Faculty development in medical education is taking place in most of the region's medical colleges. Conclusion: The challenges reported were mainly related to shortages of faculty, availability of clinical training facilities and the need to more integration with the National Health Care services. Attention to quality, standards, and accreditation is considered essential by all colleges. © 2010 Informa Healthcare Ltd.

48. Hamdy H, Telmesani AW, Wardy NA, Abdel-Khalek N, Carruthers G, Hassan F, et al. Undergraduate medical education in the Gulf Cooperation Council: A multi-countries study (Part 2). Medical Teacher. 2010 //;32(4):290-5.

Background: The Gulf Cooperation Council (GCC) countries have witnessed over the last 40 years a rapid and major social, cultural, and economic transformation. The development of medical education in the region is relatively new, dating from the late 1960s. An important goal among the medical colleges in the region is to graduate national physicians who can populate the healthcare service of each country. Aim: The aim of this study is to provide understanding of undergraduate medical education in each of the six GCC countries and the challenges that each face. Methods: This is a descriptive cross-sectional study. Fourteen senior medical faculty were requested to submit information about undergraduate medical education in their own countries, focusing on its historical background, student selection, curriculum, faculty, and challenges. Results: The information provided was about 27 medical colleges: 16 from the Kingdom of Saudi Arabia (KSA), five from the United Arab Emirates, two from the Kingdom of Bahrain, two from Sultanate of Oman, one from Kuwait and one from the State of Qatar. It was found that older colleges are reviewing their curriculum while new colleges are developing their programs following current trends in medical education particularly problem-based learning and integrated curricula. The programs as described 'on paper' look good but what needs to be evaluated is the curriculum 'in action'. Faculty development in medical education is taking place in most of the region's medical colleges. Conclusion: The challenges reported were mainly related to shortages of faculty, availability of clinical training facilities, and the need to more integration with the National Health Care services. Attention to quality, standards, and accreditation is considered essential by all colleges. © 2010 Informa UK Ltd. All rights reserved.

49. Henari FZ, Dakhel AA. Investigation of nonlinear optical properties of gold nanograins embedded in indium oxide films by reflection Z-scan using continuous laser. Journal of Applied Physics. 2010 //;108(12).

Nanograins of gold-embedded in indium oxide thin films were fabricated by vacuum evaporation on silicon substrate. The gold concentrations were 3, 5, and 7 at. % as measured by x-ray fluorescence method. The x-ray diffraction results reveal that pure gold was crystallized into nanograins embedded in the indium oxide medium. The nonlinear optical properties of films on silicon substrate were investigated by reflection z-scan technique, using cw laser at 514 nm. Measurements of nonlinear refractive index and nonlinear absorption coefficient on these films are reported and the mechanism responsible for the process of optical nonlinearities is discussed. © 2010 American Institute of Physics.

50. Kassab SE, Hussain S. Concept mapping assessment in a problem-based medical curriculum. Medical Teacher. 2010 //;32(11):926-31.

Background In the problem-based learning (PBL) medical curriculum at the Arabian Gulf University in Bahrain, students construct concept maps related to each case they study in PBL tutorials. Aim To evaluate the interrater reliability and predictive validity of concept map scores using a structured assessment tool. Methods We examined concept maps of the same cohort of students at the beginning (year 2) and end (year 4) of the pre-clerkship phase, where PBL is the main method of instruction. Concept maps were independently evaluated by five raters based on valid selection of concepts, hierarchical arrangement of concepts, integration, relationship to the context of the problem, and degree of student creativity. A 5-point Likert scale was used to evaluate each criterion. Interrater reliability of the instrument was determined using the intraclass correlation coefficient (ICC) and predictive validity was measured by testing the correlations of concept map scores with summative examination scores. Results The ICC of the concept map scores in year 2 was 0.75 (95 CI,0.670.81) and in year 4 was 0.69 (95 CI,0.590.77). Overall concept maps scores of year 4 students were significantly higher compared

with year 2 students ($p < 0.001$, effect size 0.5). The relationship between the students' scores in concept maps and their scores in summative examination varied from no to mild correlation. Conclusion The interrater reliability of concept map scores in this study is good to excellent. However, further studies are required to test the generalizability and validity of assessment using this tool. © 2010 Informa UK Ltd.

51. Khalaf AJ, Whitford DL. The use of complementary and alternative medicine by patients with diabetes mellitus in Bahrain: A cross-sectional study. BMC Complementary and Alternative Medicine. 2010 //;10.

Background: CAM use is widespread, especially among patients with diabetes. The Gulf States have a high prevalence of diabetes, alongside a long tradition of CAM use. The aim of this study is to establish the prevalence of CAM use among patients with diabetes mellitus in Bahrain and to examine the characteristics of the CAM users. Methods: A questionnaire was developed and administered to a convenience sample of patients with diabetes ($n = 402$) above the age of 20 attending two hospital diabetes clinics. Data were analysed using descriptive statistics and non-parametric tests of association. Results: 63% of responders utilized CAM within the previous 12 months. CAM users were more likely to be female, to have had diabetes for longer and to have complications of their diabetes. 64% of CAM users stated that they had used CAM for managing their diabetic condition, with 46% of these having used it solely for their diabetes. Respondents using CAM to manage their diabetes were more likely to be male, to be using CAM on a daily basis and to have informed their physician of their CAM use. Conclusions: There is a high rate of CAM use in patients with diabetes attending two hospital diabetes clinics in Bahrain. There is also a high rate of non-disclosure of CAM use to physicians. There is a continuing need for health professionals to be more aware and better trained in order to inform their decision making and communication related to CAM use. © 2010 Khalaf and Whitford; licensee BioMed Central Ltd.

52. Lynch CD, McGillicuddy CT, O'Sullivan VR, Sloan AJ. Gabriel-Philippe de la Hire and the discovery of Hunter-Schreger bands. British Dental Journal. 2010 //;209(9):461-5.

Hunter-Schreger bands are an optical phenomenon observed in mammalian tooth enamel. Familiar to all current and former students of dental histology, this optical phenomenon appears as alternating patterns of dark and light bands when cut enamel is viewed under reflected light. The discovery of this important feature of mammalian enamel has been historically credited to two eighteenth-century investigators, Hunter and Schreger. A re-evaluation of the evidence would suggest that the bands were observed almost seventy years earlier by a French scientist, Gabriel-Philippe de la Hire, and subsequently confirmed by the famous French dentist Pierre Fauchard. This article reviews the contribution of de la Hire, as well as that of Fauchard, Hunter and Schreger, to the early recognition among the scientific community of what would now be referred to as 'enamel microstructure'. © 2010 Macmillan Publishers Limited.

53. Lynch CD, O'Sullivan VR, Dockery P, McGillicuddy CT, Sloan AJ. Hunter-Schreger Band patterns in human tooth enamel. Journal of Anatomy. 2010 //;217(2):106-15.

Using light microscopy, we examined Hunter-Schreger Band (HSB) patterns on the axial and occlusal/incisal surfaces of 160 human teeth, sectioned in both the buccolingual and mesiodistal planes. We found regional variations in HSB packing densities (number of HSBs per mm of amelodentinal junction length) and patterns throughout the crown of each class of tooth (maxillary and mandibular: incisor, canine, premolar, and molar) examined. HSB packing densities were greatest in areas where functional and occlusal loads are greatest, such as the occlusal surfaces of posterior teeth and the incisal regions of incisors and canines. From this it is possible to infer that the behaviour of ameloblasts forming enamel prisms during amelogenesis is guided by genetic/evolutionary controls that act to increase the fracture and wear resistance of human tooth enamel. It is suggested that HSB packing densities and patterns are important in modern clinical dental treatments, such as the bonding of adhesive restorations to enamel, and in the development of conditions, such as abfraction and cracked tooth syndrome. © 2010 The Authors. Journal compilation © 2010 Anatomical Society of Great Britain and Ireland.

54. Marcus A, Sinnott B, Bradley S, Grey I. Treatment of idiopathic toe-walking in children with autism using GaitSpot Auditory Speakers and simplified habit reversal. Research in Autism Spectrum Disorders. 2010 //;4(2):260-7.

This study aimed to examine the effectiveness of a simplified habit reversal procedure (SHR) using differential reinforcement of incompatible behaviour (DRI) and a stimulus prompt (GaitSpot Auditory Squeakers) to reduce the frequency of idiopathic toe-walking (ITW) and increase the frequency of correct heel-to-toe-walking in three

children with autism. The study involved a delayed multiple baseline changing criterion design across individuals. Firstly, a baseline phase was conducted to determine the number of intervals where ITW occurred. Secondly, the GaitSpot Auditory Squeakers were paired with reinforcers. Thirdly, children wore GaitSpot squeakers over the heels of their feet under their shoes for a small number of 10 min sessions and when weight was placed on their heel, a squeak was emitted which was subsequently reinforced. Fourthly, the length of time the children wore the GaitSpot Auditory Squeakers was extended. Finally, the GaitSpot Auditory Squeakers were faded out and tests for generalisation and maintenance of heel-to-toe walking were conducted. The intervention produced substantial reductions in ITW across all participants though degree of reduction differed. The role of SHR and additional modifications for the treatment of ITW are discussed. © 2009 Elsevier Ltd. All rights reserved.

55. Ofurum KA, Whitford DL. Health-care associated infection rates among adult patients in Bahrain military hospital: A cross sectional survey. Bahrain Medical Bulletin. 2010 //;32(1).

Background/Objective: Health-care associated infections cause substantial morbidity and mortality with their prevalence varying between countries and hospitals. There are no published studies of health-care associated infections in hospitals in Bahrain and few in general military hospitals. Setting: Bahrain Defense Force Hospital. Design: Survey. The aim study is to establish the prevalence of health-care associated infections in a general military hospital in Bahrain. Method: A cross-sectional survey of a random sample of 500 medical records in the Bahrain Defence Force Hospital was carried out to ascertain the prevalence of health-care associated infections. Result: Four health-care associated infections were recorded - a prevalence of 0.87% (95% CI 0.34-2.22). Two of the infections were surgical site infections while the other two were skin infections. Conclusion: This study revealed that the prevalence of health-care associated infections is lower than recorded in most published studies.

56. Otoom S, Culligan K, Al-Assoomi B, Al-Ansari T. Analysis of drug prescriptions in primary health care centres in Bahrain. Analyse des prescriptions médicamenteuses dans les centres de soins de santé primaires à Bahreïn. 2010 //;16(5):511-5.

The aim of this study was to analyse drug prescribing practices in primary health care centres in Bahrain. We retrospectively evaluated 600 prescriptions selected randomly from all primary health care centres in Bahrain (n = 20) in 2004. Analysis followed WHO recommended prescribing core indicators. The mean number of drugs prescribed at each encounter was 3.3 (SD 0.7). A single drug was prescribed on 6.3% of prescriptions and drugs were prescribed by generic name on 10.2%. The percentage of total prescriptions for antibiotics was 45.8%, for injections was 9.3% and for vitamins was 12.5%. The prescribing pattern in primary health care centres in Bahrain is associated with polypharmacy, over-prescribing of antibiotics and an under-prescribing of drugs by generic names.

57. Whitford DL, Al-Sabbagh M. Cultural variations in attitudes towards family risk of diabetes. Diabetes Research and Clinical Practice. 2010 //;90(2):173-81.

Aims: To examine differences in attitudes and behaviours towards familial risk of type 2 diabetes in populations in Ireland and Bahrain. Methods: Cross-sectional ecological study. Questionnaires were developed and administered to patients with diabetes and their first degree relatives in both Bahrain and Ireland. Data was analysed using non-parametric tests of association. Results: Responses were compared between 297 patients with diabetes from Ireland and 201 from Bahrain and between 364 relatives of patients with diabetes in Ireland and 244 from Bahrain. Relatives in Bahrain had more knowledge of risk factors for diabetes and an increased perception of the seriousness of diabetes but a more external, chance locus of control and perceived more barriers to changing lifestyles than those in Ireland. There was no difference in perception of personal risk of diabetes. Conclusions: Knowledge of risk factors and seriousness of diabetes are higher in Bahrain than in Ireland but perception of personal risk of diabetes and intention to adopt risk reducing behaviours are no different. There is a need to develop models of behavioural change that are more relevant to the needs of the Bahraini population in reducing their risk of diabetes. © 2010 Elsevier Ireland Ltd.