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## October 2021 Vol 30 No 4

#### Original Contribution

- Prevalence of Hepatitis B Virus Infection among Children with Liver Disease Admitted In Mymensingh Medical College Hospital Aktar A, Ali MA, Haque MA, Hossain S, Jasmine T, Zaman K, Islam MA, Ahmad F, Sharmin M, Pandit P, Ali MS
- 903 A Study on Outcome of Surgical Treatment of Chronic Retrocalcaneal Bursitis Rahman KH, Arifeen KN, Mahmud CI, Saha MK, Rana MS, Ahmad JU, Monjur-ul-Alam M, Ahmed FA, Alamgir MK
- 907 Risk Association, Clinical Presentation and Management of Uterine Leiomyoma Akhter S, Jahan K, Afrose R, Jahan R, Fatema S, Dey S
- 913 Serum Vitamin B12 Levels in Patients with Type 2 Diabetes Mellitus on Metformin Compared to those Never on Metformin: A Cross-sectional Study from Bangladesh Kamrul-Hasan AB, Alam MS, Chanda PK, Selim S
- 821 Role of High Neutrophil Lymphocyte Ratio as an Independent Predictor of Adverse In-Hospital Outcomes in Patients with First Attack of ST-Elevation Myocardial Infarction Thrombolysed with Streptokinase Rahman MS, Bari MA, Ahmed SM, Sharif JU, Bhowmick K, Chowdhury MS, Abdullah M, Amin R, Shakil SS
- Role of Intraperitoneal Normal Saline Instillation in Relieving Post-operative Pain Following Laparoscopic Cholecystectomy: A Quasi Experimental Study Habib A, Emon RI, Shejuty TR, Reza E, Khan SA
- 936 Seropositivity of Human Brucellosis among Patients with Pyrexia of Unknown Origin on Both Risk and Non-Risk Group of Individuals and Molecular Detection by Real-time PCR Alam M, Paul SK, Haque N, Ahmad FU, Mazid R, Al Amin MM, Aziz MA, Paul A,
- Ahmed S, Nasreen SA, Kobayashi N

  Pattern of Casualties Attending in the Casualty Department of a Tertiary Level Hospital
  of Bangladesh
  Kamruzzaman M, Saha MK, Shimul MU, Rana MS, Mahboob AH
- Orrelation between Fasting Serum Glucose and Serum Zinc Level in Patients with Type-2 Diabetes Mellitus
- Israt S, Nessa A, Rahman HH, Sharmin A, Akter N, Dipa MI, Firoz S, Saki SA

  Detection of Biocide Resistance Genes (qacE and qac∆E1) in Pseudomonas spp Isolated from Patients with CSOM at Mymensingh Medical College Hospital, Bangladesh Chowdhury CS, Khan JA, Khanam J, Nila SS, Ahmed S, Haque N, Ahamad F, Paul A, Ara H, Paul SK, Kobayashi N, Abedin S, Roy S, Nasreen SA
- 960 The HRCT Evaluation of 105 Suspected COVID 19 Patients of MMCH and RT-PCR Correlation
- Jahan AB, Sarwar JM, Ahsan SB, Hossain MZ, Debnath MR, Begum K, Sangma MA
  Rapid Serologic and Molecular Diagnosis of Scrub Typhus among Suspected Febrile
  Patients Visiting Mymensingh Medical College Hospital
  Nila SS, Paul SK, Kobayashi N, Nasreen SA, Ahmed S, Ahamad F, Haque N, Khanam J,
  Paul A, Ara H, Sultana C, Rahman S, Titir SR, Sayeed AB, Roy S
- 973 Association of Serum Gamma Glutamyl Transferase and Uric Acid Levels with Impaired Fasting Glucose in Adults at a Tertiary Level Hospital of Bangladesh Sharmin F, Roy MN, Junaed MT
- 980 Knowledge of Autism Spectrum Disorder Among 2nd to 4th Phase MBBS Students of Bangladesh Ahsan A, Arafat-Islam M, Fatima M, Mahboob RN, Kamrul-Hasan AB
- Early and Rapid Detection of Typhoid Fever by Nested PCR in Blood
   Khanam J, Paul SK, Kobayshi N, Nasreen SA, Ahmed S, Haque N, Ahamad F, Nila SS,
   Hosen MA, Chowdhury CS
- 991 Level of Serum Creatinine and Creatinine Clearance Rate in Obese Female Meherubin I, Nessa A, Huda MN, Yeasmin F, Afroz L, Mumu NS
- 997 Clinico-pathological Evaluation of Residual Ovary Syndrome: A Cross Sectional Study Nahar K, Amatullah M, Khatun K, Laila TR, Pervin T, Begum SA
- 1003 Three-Jaw Chuck Pinch Strength and its Correlation with Hand Depth in Electronics Technicians Akter S, Sumi SA, Asha MT, Ara S, Shahriah S

Content continued on inside front cover

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M M J

#### October 2021 Vol 30 No 4

### Content continued from front cover

- 1009 A Prospective Study of Deep Vein Thrombosis after Major Abdominal Surgery in a Tertiary Level Hospital Suddique AB, Mahmud F, Haque MA, Biswas AK, Azad AS, Mia M, Alam AK
- Association of Modified Sequential Organ Failure Assessment (MSOFA) Score and C-reactive protein (CRP) With the Outcome of Patients under Mechanical Ventilation Akter F, Khalilullah I, Ahmed MR, Akter K, Arefin MS, Hassan M, Banik D, Yeasmin S

1023 Relaparotomy Following Caesarean Section: A Cross Sectional Study Kundu G, Begum SA, Afroz H, Mahmud T, Sultana Z, Faruq M

1031 Status of Serum Calcium, Phosphate and Intact Parathyroid Hormone in Predialysis Chronic Kidney Disease Patients of Stage-3 to Stage-5 Compared To KDOQI Guideline Hai AA, Rahman MM. Anwar MR, Miah OF, Latif A, Jalil ME, Razzak MA, Morshed AM, Mahmud H, Dowel FA

1043 Depression, Anxiety and Stress among the Students and Their Academic Performance in Selected Medical Colleges of Bangladesh Hossain MA, Islam M, Mouly SS, Nikhat N

1051 Early Detection of Acute Kidney Injury by Neutrophil Gelatinase Associated Lipocalin in Patients Undergoing Coronary Artery Bypass Grafting with Cardiopulmonary Bypass Kar S, Alam MR, Alam SK, Wadud MA, Ibrahim M, Rahman H, Ahammed SU, Hossain ME

1060 Frequency of Osteoporosis among Chronic Obstructive Pulmonary Disease Patients Attending Respiratory Medicine Out Patient Department, BSMMU

Yadav RK, Hasan MN, Sarkar SM, Rahman MM, Rahman MA, Mosharraf-Hossain AK

1067 Milestones of Development in Infancy: A Prospective Study in a Tertiary Level Hospital of Bangladesh Khatun A, Kabir AL, Habib RB, Islam MT, Ferdaus AM, Kamal MZ, Islam FA

- Sociodemographic and Clinico-laboratory Profile of Expanded Dengue Syndrome: Experience from a Tertiary Hospital of Dhaka, Bangladesh Salma U, Sarker MA, Zafrin N, Rahman MM, Kamrul-Hasan AB
- 1079 Accuracy of Magnetic Resonance Cholangiopancreatography in Case of Biliary Obstruction Comparing Post-operative Findings: A Study of 50 Cases Khan T, Alam SZ, Al Mamun M, Rahman MS, Islam MU, Bari S

1086 A Clinical Study on Gallbladder Polyp

Karim MM, Ahmed EU, Mozumder S, Zebunnesa M, Azad KA

1093 Difference in Clinical Patterns between COVID-19 Affected Children and Adults

Hasnat F, Noman F, Moben AL, Sarker AS, Morshed J, Mutanabbi M

1100 "Screen and Treat" Approach among VIA Positive Women during Cervical Cancer Screening Program: Experience at Low Resource Shahnaz S, Hira HM, Begum KN, Akhter R, Sharmin S

1107 Clinical and Neuro-radiological Profile of Symptomatic Cytomegalovirus Infection in Infants in a Tertiary Care Hospital Akter N, Rahman MM, Akhter S

1117 Demographic and Clinical Profile of COVID-19 ICU Patients of Bangabandhu Sheikh Mujib Medical University, Bangladesh Mondal MK, Jahan S, Yeasmeen S, Haque AF, Habibullah M, Hasan M, Banik D 1124 Patterns of Health Care Utilization during Breast Cancer Diagnosis and Treatment: A Cross Sectional Study in Bangladesh

Akhtar K, Akhtar K, Nahar S, Ahamed F

- 1131 A Comparative Study between Magnetic Resonance Imaging and Clinical FIGO Criteria in Different Stages of Carcinoma Cervix Zubery MH, Rahman FB, Islam MN, Datta A, Rahman T, Mahdi R
- 1139 Evaluating the Respiratory Support Pattern and Relationship with Initial Oxygen Saturation of the COVID Isolation Unit Patients in Sylhet Talha KA, Patwary MI, Bari ZJ, Rahman AS, Alam ZN, Ali SM, Selina F, Nath UD

1146 Surgical Outcome of CSF Drainage in Paediatric Obstructive Hydrocephalus

Das S, Rashid MM, Khan SI, Sarker AC, Ghosh D, Mahbub H

1154 Determinants of Pre-Hospital Delay after Myocardial Infarction in Bangladesh: A Rural Center Experience Alam MM, Adhikary DK, Khaled FI, Chowdhury MT, Hassan SR, Saha A, Mahjabeen F, Dey D, Paul PK, Khan SS

1163 Effect of Slow and Deep Breathing on Brain Waves in Regular Yoga Practitioners Malhotra V, Hulke SM, Bharshankar R, Chouhan S, Ravi N, Patrick KP

#### Case Report

1168 Ganglioneuroma Mimicking Nephroblastoma: A Case Report Shova SS, Mutanabbi M, Juwel MA

1172 Homozygous Hemoglobin Lepore: A Rare Condition Seen in a Bangladeshi Family Aziz MA, Khan WA, Das SA, Banu B

1177 D-Dimer May be a Prognostic Hematological Marker for COVID-19: A Retrospective Case Analysis Barma P, Tazrean S, Khalil I

1183 Self-Inflicted Pneumomediastinum: A Case Report Khan AA, Mohimeed AA, Sayeeda S, Rajan NG, Kabir MF

#### Review Article

1187 Mnemonic Techniques: Characteristics, Educational Suitability and Research Prospects in the Field of Anatomy Akhter N. Nawshin N. Khatun M

#### **Published Erratum**

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# Milestones of Development in Infancy: A Prospective Study in a Tertiary Level Hospital of Bangladesh

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The timing of milestone is influenced by many factors. Sex and socioeconomic status has significant effect to some psycomotor milestones. The study was conducted to determine the pattern of milestones of development of infants in our country and to compare it in different sex and socioeconomic condition. It was a hospital based prospective study done in Sir Sallimullah Medical College and Mitford Hospital, Dhaka, Bangladesh from October 2014 to November 2015. Healthy term newborn infants with average birth weight were included in this study and milestones of this birth cohort were assessed monthly from birth to 12 months of age by using a set of 60 milestones. Total number of 217 babies was enrolled but during follow up 0.9% developed meningitis, 43.7% was lost to follow up and 55.2% of the cohort was followed up to 12 months of age. Among 120 babies 51.7% were male, 48.3% were female babies and 51.7% belong to lower, 32.5% middle and 15.8% upper socioeconomic group. There was no significant difference between male and female infants achieving most of the milestones of development except in language development in which female infants were little bit higher than male infants.

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**Key words:** Milestones of development, Infancy

#### Introduction

sychomotor development in infants and children is usually assessed in terms of "milestones". A milestone is a maturity landmark and its timing in a child can be interpreted in relation to a reference population. The timing of such a milestone is influenced by many factors, which may be genetic or environmental in origin<sup>1</sup>. The influence of the environment on a child's development has been stressed by psychoanalytic thought over the past 40 years. More recently, studies in animals and man have emphasized the importance of inborn differences in prejudicing the infant's reaction to his environment<sup>2</sup>. These influential factors have been extensively investigated in developed countries. For example, a difference has been in the age at which the children start walking in five European nations of different ethnic origin. Another study in the U.S. showed that black children attained some milestones earlier than white children<sup>3</sup>. Developmental surveillance is monitoring a child's development over time to promote healthy development and identify children who may have developmental problems. Anticipatory guidance helps parents anticipate the developmental stage and developmentally appropriate behaviours. Office surveillance of child development is essential for early identification and treatment

developmental disorders; however, adequate training for this important triage task is lacking, especially in the cognitive and social-emotional sectors. Developmental milestones are specific skill attainments occurring in a predictable sequence over time, reflecting the interaction of the child's developing neurological system with the environment<sup>4</sup>.

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- 4. Hamadani JD, Tofail F, Hilaly A, Mehrin F, Shiraji S, Banu S, Huda SN. Association of postpartum Maternal Morbidities with children mental psychomotor and language development in rural Bangladesh. J Health Popul Nutr. 2012;30(2):193-204.
- 5. Capute AJ, Shapiro BK, Palmer FB, Ross A, Nachtel RC. Normal gross motor development the influence of race, sex and socioeconomic status. Developmental Milestones and Child Neurology. 1985;27:635-43.
- 6. Brynat GM, Davies KJ. The effect of sex, social class and parity on achievement of Denver development screening test items in the first year of life. Develop Med Child Neurol. 1974;16:485-93.
- 7. Capute AJ, Palmer FB, Shapiro BK, Wachtel RC, Schmidt S, Ross A. Clinical linguistic and auditory milestone scale: Prediction of cognition in infancy. Developmental Medicine and Child Neurology. 1986;28:762-71.
- 8. Gerber RJ, Wilkes T,Lalena CE. Developmental Milestones: Motor Development. Paediatrics in Review. 2010;31: 267-75.
- 9. Jahan R, Kalam AK. Measuring rural housing affordability of middle income group in Dhaka city. Journal of Bangladesh Institute of Planners. 2012;5:79-91.

- Greer S, Bauchner H, Zuckerman B. The Denver developmental screening test: How good is its predictive validity? Developmental Medicine and Child Neurology. 1989;31:774-81.
- 11. Gerber RJ, Wilkis T, Lanena CE. Developmental milestones 3: Social emotional development. Paediatrics in Review. 2011;32: 533-8.
- Freeman HF, Klein RE, Townsend JW, Lechtig A. Nutrition and cognitive development among rural Guatemalan children. Amj Public Health. 1980;70:1277-85.
- Jalil F, Lindblad BS, Hanson LA, Khan SR, Ashraf RN, Carlsson B. Early child health in Lahore, Pakistan. Acta Paediatr Suppl. 1993; 390:3-16.
- 14. Johnson CP, Blasco PA. Infant growth and development. Paediatrics in Review. 1997;18: 224-42.
- 15. Khan NZ, Muslima H, Parveen M, Bhattacharya M, Begum N, Chowdhury S et al. Neurodevelopmental outcomes of preterm infants in Bangladesh. Official Journal of American Academy of Paediatrics. 2006;118: 280-9.