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PEDIATRIC SPOTS







Saad Saleh Al Ani

JAYPEE

CONTENTS

Chapter 1: Accidents and Emergency **1**

1.1. Estimate the Bruise's Age by Color 1
1.2. Causes of Miosis Include {(CO) 2P3S} 1
1.3. Causes of Mydriasis Include (AAAS) 1
1.4. Causes of Diaphoretic Skin (SOAP) 2
1.5. Causes of Red Skin 2
1.6. Causes of Blue Skin 2
1.7. Activated Charcoal is Ineffective or Contraindicated in the Following: (CHEMICAL CamP) 2
1.8. The Symptoms of Acetaminophen Overdose Occur in Four Stages 2
1.9. Symptoms of Anticholinergics Overdose 3
1.10. The Symptoms of Iron Overdose 3
1.11. Opiate Overdose 4
1.12. Salicylates Poisoning 4
1.13. Theophylline Overdose 5
1.14. Tricyclic Antidepressant Ingestion 5
1.15. Caustic Substance Ingestion 5
1.16. Ethanol Ingestion 6
1.17. Methanol Ingestion 6
1.18. Ethylene Glycol Ingestion 7
1.19. Organophosphate Ingestion 8
1.20. Hydrocarbon Ingestion 8
1.21. Burn 8
1.22. Head Injury 10
1.23. Grade of Ankle Sprains 11

Chapter 2: Cardiology **12**

2.1. ECG Findings 12
2.2. Normal or Innocent Murmurs 30
2.3. Cardiac Catheterization; Normal Heart 31
2.4. Congenital Heart Diseases 31

Chapter 3: Dentistry **41**

3.1. The Times of Eruption of the Primary and Permanent Teeth 41
3.2. Angle Classification of Occlusion 42
3.3. Traumatic Oral Injury 43
3.4. Discolored Teeth 44
3.5. Conditions Associated with Natal Teeth 44
3.6. Systemic Problems that Cause Aggressive Periodontitis in Children 44
3.7. Differential Diagnosis of Oral Ulceration 44
3.8. Bilateral Enlargement of the Submaxillary Glands 45
3.9. Benign Salivary Gland Hypertrophy 45
3.10. Xerostomia 45

Chapter 4: Dermatology **46**
4.1. Skin Lesions 46
4.2. Nonpathological Neonatal Skin Lesions 51
4.3. Disorders with Café-au-lait Spots 55

Chapter 5: Endocrinology **56**
5.1. Relationship between Average Blood Glucose Level (mmol/L) and 'Glycosylated Hemoglobin' (HbA1c) 56
5.2. Drugs and Conditions that Affect Thyroid Function Tests 56
5.3. Overview of a Thyroid Function Workup 57
5.4. Symmetrical Goiter 57
5.5. Thyroid Scans are Used for the Following Reasons 57
5.6. Relationship between Calcium, Phosphate and Vitamin D Metabolism 58
5.7. Differential Diagnosis of Rickets 58
5.8. Insulin Therapy 58

Chapter 6: Fluids, Electrolytes and Nutrition **61**
6.1. Glucose in the Maintenance Fluids 61
6.2. Goals of Maintenance Fluids 61
6.3. Body Weight Method for Calculating Daily Maintenance Fluid Volume 61
6.4. Hourly Maintenance Water Rate 61
6.5. Composition of Intravenous Fluids 62
6.6. Natural Sources of Water Loss 62
6.7. Adjustments in Maintenance Water 62
6.8. Replacement Fluid for Diarrhea 63
6.9. Replacement Fluid for Emesis or Nasogastric Losses 63
6.10. Adjusting Fluid Therapy for Altered Renal Output 63
6.11. Clinical Evaluation of Dehydration 64
6.12. Fluid Management of Dehydration 64
6.13. Monitoring Therapy 65
6.14. Treatment of Hypernatremic Dehydration 65
6.15. Treatment of Hyponatremic Dehydration 66
6.16. A Guideline for Oral Rehydration 67
6.17. Composition of Oral Rehydration Solutions (ORS) 67
6.18. Composition of Oral Rehydration Salts Solution for Severely Malnourished Children (ReSoMal) 67
6.19. Causes of Hypernatremia 68
6.20. Causes of Hyponatremia 69
6.21. Causes of Hyperkalemia 70
6.22. Causes of Hypokalemia 71
6.23. Causes of Hypercalcemia 72
6.24. Causes of Hyperphosphatemia 72
6.25. Causes of Hypophosphatemia 73
6.26. Causes of Hypomagnesemia 74
6.27. Systematic Evaluation of an Arterial Blood Gas Sample 75

6.28. Plasma Osmolality 76
6.29. Basic Mechanisms of a Metabolic Acidosis 76
6.30. Causes of Metabolic Acidosis 76
6.31. Causes of Metabolic Alkalosis 77
6.32. Causes of Respiratory Acidosis 78
6.33. Causes of Respiratory Alkalosis 79
6.34. Causes of Rickets 80
6.35. Absolute and Relative Contraindications to Breastfeeding due to Maternal Conditions 81
6.36. Formula Feeding 82
6.37. Endocrine Causes of Obesity 84
6.38. Genetic Causes of Obesity 84

Chapter 7: Gastroenterology **86**
7.1. Causes of Oropharyngeal Dysphagia 86
7.2. Causes of Esophageal Dysphagia 87
7.3. Acid-Base Imbalance 87
7.4. First and Second Lines of Defense Against pH Shift 88
7.5. Derangement in Acid-Base Balance 88
7.6. Diagnosis of Acid-Base Imbalances 89
7.7. Easy Blood Gas Interpretation 90
7.8. Compensation-attempt to Normalize pH 90
7.9. Evaluation of Liver Function Tests 90
7.10. Clues for Diagnosis of Functional Abdominal Pain 91
7.11. Clues that Indicate an Organic Cause for the Abdominal Pain 91
7.12. Holliday-Segar Formula 92
7.13. Foreign Body Ingestions 92
7.14. Certain Contraindications to Oral Replacement Therapy 92
7.15. The "Rule of 2's" for Meckel Diverticulum 92
7.16. Comparison of Ulcerative Colitis and Crohn Disease 93
7.17. Who is at High-Risk for Hepatitis A Infection or Complications 93
7.18. Hepatitis B (HBV) 94
7.19. Acute Hepatitis B Virus Infection with Recovery; Typical Serology Course 94
7.20. The Rising and Falling Hepatitis B Serologic Markers after Months of Exposure 95
7.21. The 3 Types of Carrier States Concerning Hepatitis B 95
7.22. Possible Outcomes after Hepatitis B Infection 95
7.23. Hepatitis B Scenarios 96
7.24. Types of Viral Hepatitis and their Serological Tests 96
7.25. Conditions Associated with an Increased Risk of Hepatitis C 97
7.26. Hepatitis E 97
7.27. Esophageal Atresia and Tracheoesophageal Fistula 97
7.28. Types of Esophageal Hiatal Hernia 98
7.29. Congenital Duodenal Atresia 98
7.30. Hypertrophic Pyloric Stenosis 98

7.31. Most Common Causes of Oropharyngeal Dysphagia (Transfer Dysphagia) 99
7.32. Most Common Causes of Esophageal Dysphagia 99
7.33. Common Causes of Emesis 99
7.34. Common Causes of Gastrointestinal Obstruction 100
7.35. Criteria for Cyclic Vomiting Syndrome 101
7.36. Complications of Vomiting 101
7.37. Common Causes of Childhood Diarrhea 101
7.38. Common Causes of Constipation 103
7.39. Chronic Abdominal Pain in Children 103
7.40. Common Causes of Gastrointestinal Bleeding in Childhood 104

Chapter 8: Genetics **106**
8.1. Indications for Genetic Counseling 106
8.2. Pedigree Symbols 106
8.3. Autosomal Dominant (AD) Inheritance 107
8.4. Autosomal Recessive (AR) Inheritance 107
8.5. X-linked Recessive (XR) Inheritance 108
8.6. Y-linked Inheritance 109
8.7. Mitochondrial Inheritance 109
8.8. Clues that Genetic Disorder is likely 110
8.9. Indications for Chromosomal Analysis 111
8.10. Abnormal Maternal Screen Study 111
8.11. Down Syndrome Features 111
8.12. Characteristic Findings of Trisomy 18 (Edwards' Syndrome) 113
8.13. Common Clinical Findings of Trisomy 13 (Patau Syndrome) (Think of Midline Defects) 114
8.14. Turner Syndrome—45, X 114
8.15. Common Clinical Findings of Fragile X Syndrome 115
8.16. Common Clinical Findings of Klinefelter Syndrome—47, XXY 115
8.17. Indications for Karyotype 115

Chapter 9: Growth and Development **117**
9.1. Predicting Midparental Height in Children 117
9.2. Quick Pearls to Remember about Growth 117
9.3. Definitions of Failure to Thrive (FTT) 117
9.4. Developmental Milestones 118
9.5. Tooth Development 120
9.6. Routine Childhood Immunization Administration 120
9.7. Screening Scheme for Development Delay Upper Range 121
9.8. Expressive Language Development 122
9.9. Clues to Abnormal Speech and Language Development by Age 122
9.10. Factors Associated with Hearing Loss in Neonates 123
9.11. Behaviors Suggestive of ADHD 123
9.12. Suggested Metabolic Syndrome Indices in Children and Adolescents 123

9.13. Grasping and Handedness: Facts 124
9.14. Social Learning, Self and Others, Play and Adaptive Skills 124
9.15. Constructional and Drawing Skills 125
9.16. Importance of Skill Delays 125
9.17. The Differential Diagnosis of Delay in Motor Milestones 125
9.18. Specific Neurodevelopmental Impairments 126
9.19. Classification of Sexual Maturity States in Girls 126
9.20. Classification of Sexual Maturity States in Boys 127

Chapter 10: Hematology **129**
10.1. Anemia Mechanism Summary 129
10.2. The Peripheral Smear—Significance of Specific Changes 130
10.3. Anemia due to Iron Deficiency vs. Anemia of Chronic Inflammatory Disease (ACD) 134
10.4. Lab Results of Bleeding Disorders 134
10.5. Lab Results in DIC 135
10.6. Use of the Mean Corpuscular Volume (MCV) and Reticulocyte Count in the Diagnosis of Anemia 135
10.7. Hematology and Laboratory Features of Congenital Dyserythropoietic Anemia 136
10.8. Laboratory Studies Differentiating the Most Common Microcytic Anemias 137
10.9. Selected Cutoff Values to Define Iron Deficiency Anemia 137
10.10. Possible Complications of Blood Transfusions 138
10.11. Inherited Causes of Lymphocytopenia 138
10.12. Causes of Red Cell Fragmentation Syndromes 139
10.13. Causes of a Raised Platelet Count (Thrombocytosis) 139
10.14. Causes of Thrombocytopenia 139
10.15. Causes of Immune Thrombocytopenia 139
10.16. Hemophilia A and B—Level of Clotting Factor Related to Clinical Features 140
10.17. Complications Associated with Sickle Cell Trait 140

Chapter 11: Infectious Diseases **141**
11.1. Diagnostic Criteria of Staphylococcal Toxic Shock Syndrome 141
11.2. Diphtheria 141
11.3. Late Manifestations of Congenital Syphilis 142
11.4. Definition of Streptococcal Toxic Shock Syndrome 144
11.5. Children at High-risk of Invasive Pneumococcal Infection 144
11.6. Scarlet Fever 145
11.7. Pathophysiologic Events in Postnatally Acquired Rubella Virus Infection 145
11.8. Schematic Representation of the Development of Antibodies to Various Epstein-Barr Virus Antigens in Patients with Infectious Mononucleosis 146
11.9. Pathophysiologic Events in Measles, Rubella, Scarlet Fever, and Roseola Infantum 146

11.10. Complications of Infectious Mononucleosis 147
11.11. Definition of Positive Tuberculin Skin Testing 148
11.12. Clinical Features of Congenital Rubella, Cytomegalovirus and Toxoplasmosis 148
11.13. Mechanisms of Bacterial Resistance to Antibiotics 149
11.14. Recommendation of Usage of Pneumococcal Polysaccharide Vaccines (PPV) 149
11.15. Factors Associated with Mother-to-Child Transmission (MTCT) of HIV 149

Chapter 12: Metabolic Disorders **151**
12.1. Suspicion of Inborn Errors 151
12.2. The Classical Galactosemia (Deficiency of Galactose-1-Phosphate Uridyltransferase) 151
12.3. Friedreich Ataxia 152
12.4. Recognition Pattern of Mucopolysaccharidosis 152
12.5. Mucopolysaccharidosis Type I (Hurler Syndrome) 152
12.6. Mucopolysaccharidosis Type II (Hunter Syndrome) 153
12.7. Phenylketonuria (PKU) 153
12.8. Metabolic Screening 154
12.9. Some of the Most Common Reasons for Referral to a Metabolic Clinic 154
12.10. Disorders of Fatty Acid Metabolism 154
12.11. Inborn Errors of Metabolism that Cause Elevated Blood Lactate 155
12.12. Differential Diagnosis of Hyperammonemia 155
12.13. Evaluation of Metabolic Acidosis in the Young Infant 156
12.14. Special Smell that Indicates the Inborn Error of Metabolism (IEMs) 156
12.15. Quick References for Differential Diagnosis of Inborn Error of Metabolism 157
12.16. Organic Acidemias 157
12.17. Fatty Acid Oxidation Defects 157
12.18. Primary Lactic Acidosis 158
12.19. Aminoacidopathies 158
12.20. Urea Cycle Defects 158
12.21. Disorders of Carbohydrate Metabolism 159
12.22. Lysosomal Storage Disorders 159
12.23. Peroxisomal Disorders 159

Chapter 13: Neonatology **161**
13.1. Lethal Neonatal Dwarfism 161
13.2. Usually Nonlethal Dwarfing Conditions 161
13.3. Incidence of Malformation and Degree of Maternal Hyperglycemia Prior to Conception 162
13.4. Known Risk Factors for Prematurity 162

13.5. Independent Risk Factors for Increased Mortality among Preterm Infants 162
13.6. Algorithm for Management of Baby Born to Mom with Group B Streptococcus Infection (GBS) Prophylaxis 163
13.7. Apgar Score (After Virginia Apgar) 163
13.8. The Used Endotracheal Tube (i.e. diameter) Based on Body Weight 164
13.9. A "White Pupillary Reflex" is Abnormal 164
13.10. Prechtl States of Sleep and Wakefulness in the Newborn 165
13.11. Glucose Screening 165
13.12. The "Primitive" Reflexes 166
13.13. The Clinical Problems Associated with Small for Gestational Age (SGA) at Birth 166
13.14. Complications of Diabetes in Pregnancy on the Fetuses and Infants 166
13.15. The Risk of Developing Respiratory Distress Syndrome (RDS) Hyaline Membrane Disease (HMD) 167
13.16. Persistent Pulmonary Hypertension of the Newborn (PPHN)—The Most Commonly Identified Etiologies 167
13.17. Do Not Use Indomethacin in Treatment of Patent Ductus Arteriosus (PDA) Conditions 167
13.18. Meconium Plugs 168
13.19. Risk Factors for Severe Hyperbilirubinemia 168
13.20. Neonatal Jaundice 168
13.21. Guidelines for Implementing Phototherapy in Hyperbilirubinemia 169
13.22. Guidelines for Implementing Exchange Transfusion in Hyperbilirubinemia 170
13.23. Congenital Syphilis 171
13.24. Neonatal Seizures 171
13.25. Characteristic Features of Early- and Late-onset Neonatal Listeriosis 173
13.26. Characteristic Features of Early- and Late-onset GBS Disease 173
13.27. Screening for Inborn Errors of Metabolism that Cause Neonatal Seizures 173
13.28. Pathophysiology of Meconium Passage and the Meconium Aspiration Syndrome 175
13.29. Congenital Infections 175
13.30. Neonatal Features of Maternal Drugs Intake Prenatally 176
13.31. Definitions by World Health Organization (WHO) 177
13.32. Conditions Predisposing to Birth Injury 178
13.33. The Major Clinical Features for Grading the Severity of Hypoxic-Ischemic Encephalopathy 178
13.34. Differential Diagnosis for Hypoxic-Ischemic Encephalopathy 178
13.35. Etiology of the Small for Gestational Age (SGA) Neonate 179
13.36. Problems of the Small for Gestational Age (SGA) Neonate 179

13.37. Etiology of the Large for Gestational Age (LGA) Neonate 179
13.38. Problems of the Large for Gestational Age (LGA) Neonate 180
13.39. Complications of Parenteral Nutrition 180
13.40. Factors Affecting the Incidence of RDS 180

Chapter 14: Nephrology 182
14.1. Most Frequent Hereditary—Metabolic Diseases of Childhood that Lead to End-stage Renal Disease 182
14.2. Causes of End-stage Renal Disease (ESRD) Vary with the Patient's Age 182
14.3. Causes of Anemia in Chronic Kidney Disease (CKD) 182
14.4. Schwartz Formula for Estimation of Creatinine Clearance 182
14.5. Important Concepts Used in Determining Acid-Base Status 183
14.6. Changes in Blood Chemistry—Respiratory vs Metabolic Disorders 183
14.7. Metabolic Acidosis 184
14.8. Anion Gap and Metabolic Acidosis 184
14.9. Analysis of Acid-Base Problems 185
14.10. Persistent Asymptomatic Hematuria 186
14.11. Evaluation of Hematuria in Children—Tests for All Children at Initial Presentation 186
14.12. Evaluation of Hematuria in Children—Tests for Selected Children 186
14.13. Classical Features of Henoch-Schönlein Purpura (HSP) (Anaphylactoid Purpura) 187
14.14. Classical Features of Nephrotic Syndrome 187
14.15. Poor Prognostic Features of Hemolytic Uremic Syndrome 187
14.16. Facts about Renal Tubular Acidosis (RTA) 187
14.17. Type II RTA (Proximal RTA) 188
14.18. Type IV RTA 188
14.19. Type I RTA (Distal RTA) 189
14.20. Acute Renal Failure 189
14.21. Causes of Chronic Interstitial Nephritis 190
14.22. Risk Factors Associated with the Development of UTI 190
14.23. Effect of Constipation on Urinary System 190
14.24. Differential Diagnosis of Enuresis 191
14.25. VUR Grading 191
14.26. Causes of Hematuria 192
14.27. Investigations for Children with Renal Calculi 192
14.28. Classification of Glomerular Disorders 193
14.29. Causes of Proteinuria 193
14.30. Features of Nephrotic Syndrome 194

14.31. Indications for Renal Biopsy in Children with Nephrotic Syndrome 194
14.32. Causes of Infantile Nephrotic Syndrome 195
14.33. Causes of Hypertension 195
14.34. Causes of Renal Hypertension 196
14.35. Biochemical Urine Indices in Renal Failure 197
14.36. Guidelines on the Indications for Dialysis 197
14.37. Stages of Chronic Renal Failure (CRF) 197

Chapter 15: Neurology **198**
15.1. MRI of the Head 198
15.2. Cytogenetic Chromosome Testing for Mental Retardation 198
15.3. Delayed Language Development 198
15.4. Diagnostic Criteria for Migraine Headaches 199
15.5. Febrile Infection-related Epilepsy Syndrome (FIRES) 199
15.6. EEG Series 199
15.7. Screening Scheme for Developmental Delay: Upper Range 204
15.8. Head Growth 204
15.9. Permanent Causes of Anosmia (Loss of Smell) 204
15.10. Horner Syndrome 205
15.11. Causes of True or Apparent VIth Nerve Weakness in Children 205
15.12. Most Common Clinical Features of Progressive Infantile Hydrocephalus 205
15.13. Clinical Features of Decompensated Hydrocephalus (Children with Shunts) 206
15.14. Causes of Acquired Hydrocephalus 206
15.15. Dandy-Walker Malformation 207
15.16. Classification of Spina Bifida 208
15.17. Neurofibromatosis 1 (NF1) 208
15.18. Neurofibromatosis 2 (NF2) 209
15.19. Diagnostic Criteria for Tuberous Sclerosis Complex (TSC) 209
15.20. Principal Purposes for the Usage of EEG 210
15.21. Generalized, Self-limited Seizures 210
15.22. Focal, Self-limited Seizures 212
15.23. Indications for Neuroimaging in Children with Headache 214
15.24. Causes of Ataxia in Children 215
15.25. Transient Movement Disorders in Childhood 215

Chapter 16: Oncology **217**
16.1. Common Chemotherapeutic Agents; Mechanism of Action and Toxicity 217
16.2. Some Conditions Predispose to AML 218
16.3. Differences between Osteosarcoma and Ewing Sarcoma 218
16.4. The Most Common Signs and Symptoms of Cancer in Children 218
16.5. Uncommon Signs and Symptoms of Cancer in Children 219
16.6. Oncologic Emergencies 219
16.7. Potential Long-term Sequelae of Childhood Cancer 220
16.8. Categorical Etiological Factors for CNS Tumors 220

16.9. The WHO Classification Hodgkin's Lymphoma or Hodgkin's Disease (HD) 220
16.10. Factors Predisposing to Childhood Leukemia 221
16.11. French-American-British (FAB) Classification of Acute Myelogenous Leukemia 221
16.12. Location of Childhood Brain Tumors within the Central Nervous System 222

Chapter 17: Ophthalmology 223
17.1. Useful Screening Questions for Older Children with Perceptual Visual Difficulties Related to Central Nervous System (CNS) Disease 223
17.2. Refractive Errors 223
17.3. Causes of Cerebral Visual Impairment 224
17.4. Conditions that may Present with (Apparent) Concomitant Strabismus 224
17.5. Causes of True or Apparent VIth Nerve Weakness in Children 225
17.6. Mnemonic 'DWARF' for Evaluation of Nystagmus 225
17.7. Causes of Sensory Congenital Nystagmus 225
17.8. Causes of Acquired Nystagmus in Children 226
17.9. Ocular Defects that may Cause Bilateral Congenital Blindness 226
17.10. The Blind Infant with Apparently Normal Eyes 227
17.11. Causes of Visual Loss in Children Evident on Ophthalmic Examination 228
17.12. Congenital Ptosis 228
17.13. Causes of Congenital Cataracts 229
17.14. Abnormalities of the Optic Disk and Retina 230
17.15. Corneal Clouding 233
17.16. Differential Diagnosis of Retinal Hemorrhages in an Infant with Suspected Shaking Injury (Not Exhaustive) 233
17.17. Ophthalmological Photos 234
17.18. Stages of Papilledema (Frisen Scale) 237

Chapter 18: Orthopedic 240
18.1. Differential Diagnosis of Joint Pain in Children 240
18.2. Hypermobility, Criteria Most Frequently Used to Define 241
18.3. Inherited Syndromes with Significant Hypermobility 241
18.4. Inherited Skeletal Dysplasias 242
18.5. Differential Diagnosis of Inflammatory Arthritis in Childhood 242
18.6. The Differential Diagnosis of Joint Pain in Children 243
18.7. Comparison of Synovial Fluid Analysis in Children with Infective and Inflammatory Arthritis 244
18.8. Psoriatic Arthritis 244
18.9. Criteria for the Diagnosis of Rheumatic Fever 245
18.10. Roles of Radiological Imaging in Juvenile Idiopathic Arthritis (JIA) 245
18.11. Kawasaki Disease 247

18.12. Juvenile Dermatomyositis 248
18.13. Systemic Lupus Erythematosus 249

Chapter 19: Otolaryngology **251**
19.1. Facts about ENT 251
19.2. Causes of Sensorineural Deafness 252
19.3. Symptoms of Sensorineural Deafness 253
19.4. Common Causes of Stridor in Infants and Children 253
19.5. Normal CT Scan for the Paranasal Sinuses 255
19.6. Lateral Soft Tissue X-ray of a 4-year-old Boy 256
19.7. Adenoidectomy 257
19.8. Tonsillectomy 257
19.9. Causes of Hoarseness in Children 257
19.10. Complications of Tonsillitis 258
19.11. The Most Common Causes of Epistaxis in Children 258
19.12. Serous Otitis Media (Secretory Otitis Media) 259
19.13. Predisposing Factors for Acute Suppurative Otitis Media 259

Chapter 20: Respiratory Disorders **260**
20.1. The AAP Guidelines for RSV Immunoprophylaxis for High-risk Infants and Children 260
20.2. Signs of Respiratory Distress in an Infant Older than 2 Months of Age 260
20.3. Tachypnea Thresholds based on Age—A Comparison 260
20.4. Recommendations of Chest X-ray for Chest Infection 261
20.5. Side Effects of Systemic Corticosteroids 261
20.6. Problems that may be Caused by the Usage of Inhaled Steroids 261
20.7. Risk Factors for Poor Prognosis in Drowning and Submersion Events 261
20.8. Reasons to Consider Sweat Test 261
20.9. Hemoptysis in Children 262
20.10. Sarcoidosis 262
20.11. Conditions Predisposing to Aspiration Lung Injury in Children 264
20.12. Finger Clubbing 265
20.13. Spirogram Showing Lung Volumes and Capacities 266
20.14. Pulmonary Function Testing 266
20.15. The Most Common Causes of Epistaxis in Children 267
20.16. Condition that can Mimic the Common Cold 267
20.17. Exercise-induced Bronchospasm 268
20.18. Lung Function Abnormalities in Asthma 268
20.19. Lung Function Patterns (For Spirometry) 269
20.20. Congenital Central Hypoventilation Syndrome (CCHS) 269
20.21. Factors Suggesting Need for Hospitalization of Children with Pneumonia 269
20.22. Differentiation of Pleural Fluid 270
20.23. Low Glucose or pH in Pleural Fluid 270
20.24. Causes of Spontaneous Pneumothorax 270
20.25. Cystic Fibrosis 271

Chapter 21: Rheumatology **274**
21.1. Criteria for Diagnosis of Systemic Lupus Erythematosus (SLE) 274
21.2. Common Presentation of Neonatal Lupus Erythematosus 275
21.3. Diagnosis of Juvenile Dermatomyositis 275
21.4. Kawasaki Disease 276
21.5. Systemic Juvenile Idiopathic Arthritis 276
21.6. Characteristics Differentiation of the Spondyloarthritides 277
21.7. Viruses Associated with Arthritis 277
21.8. Morbidity in Childhood Lupus 278
21.9. Definition of Arthritis 279
21.10. Arthralgias without Physical Findings for Arthritis 279
21.11. Arthritis as a Presenting Manifestation of Multisystem Rheumatic Diseases of Childhood 279
21.12. Symptoms Characteristic of Inflammatory Back Pain 279
21.13. Reactive Arthritis 279
21.14. Drug-induced Lupus 280
21.15. The Screening Musculoskeletal Examination in a Child 281
21.16. Causes of Migratory Arthritis 281
21.17. Causes of Polyarthritis 281
21.18. Henoch-Schönlein Purpura (HSP) 282

Chapter 22: Pediatric Mnemonics **284**
22.1. APGAR Score Components 284
22.2. Autistic Disorder: Features 284
22.3. Breastfeeding: Contraindicated Drugs 284
22.4. Branches of Facial Nerve 285
22.5. Cyanotic Congenital Heart Diseases 285
22.6. ECG: T Wave Inversion Causes 285
22.7. Innocent Murmurs 285
22.8. Meckel's Diverticulum-Rule of 2's 285
22.9. Murmurs: Questions to Ask 286
22.10. Murmurs: Innocent Murmur Features (8 S's) 286
22.11. Paramyxoviruses Family 286
22.12. Pheochromocytoma-rule of 10%s 286
22.13. Potter Syndrome 287
22.14. Protein Content of Milk 287
22.15. Psoriasis: Pathophysiology 287
22.16. Radial Nerve Innervates the BEST!!!! 287
22.17. Rash Appearance in a Febrile Patient 288
22.18. Risk Factor for Neonatal Jaundice 288
22.19. Raynaud's Phenomenon: Causes 288
22.20. STURGE Weber 288
22.21. White Patch of Skin: Differential 289
22.22. Williams Syndrome 289
22.23. DiGeorge Syndrome 289
22.24. Short Stature 289

22.25. Breastfeeding: Contraindicated Drugs BREAST 290
22.26. Congenital Adrenal Hyperplasia (CAH) 290
22.27. Causes of Elevated Anion Gap Metabolic Acidosis 290
22.28. Causes of Normal Anion Gap Metabolic Acidosis 291
22.29. Causes of Respiratory Alkalosis 291
22.30. Measles: Complications "MEASLES COMP" 291

Suggested Reading *293*
Index *295*

CHAPTER

3

Dentistry

3.1. The Times of Eruption of the Primary and Permanent Teeth

3.1.1. Primary dentition

Primary Dentition		
Maxillary		
Tooth	**Range**	
Central incisor	4 months	7½ months
Lateral incisor	5 months	8 months
Canine	9 months	16–20 months
First molar	6 months	12–16 months
Second molar	10–12 months	20–30 months
Mandibular		
Tooth	**Range**	
Central incisor	4 months	6½ months
Lateral incisor	4¼ months	7 months
Canine	9 months	16–20 months
First molar	6 months	12–16 months
Second molar	10–12 months	20–30 months

3.1.2. Permanent dentition

Permanent Dentition		
Maxillary		
Tooth	**Range**	
Central incisor	4–5 years	7–8 years
Lateral incisor	4–5 years	8–9 years
Canine	6–7 years	11–12 years

Contd...

JAYPEE BROTHERS

Contd...

Tooth	Range	
First premolar	5–6 years	10–11 years
Second premolar	6–7 years	10–12 years
First molar	2½–3 years	6–7 years
Second molar	7–8 years	12–13 years
Third molar	12–16 years	17–21 years
Mandibular		
Tooth	**Range**	
Central incisor	4–5 years	6–7 years
Lateral incisor	4–5 years	7–8 years
Canine	6–7 years	9–10 years
First premolar	5–6 years	10–12 years
Second premolar	6–7 years	11–12 years
First molar	2½–3 years	6–7 years
Second molar	7–8 years	11–13 years
Third molar	12–16 years	17–21 years

3.2. Angle Classification of Occlusion

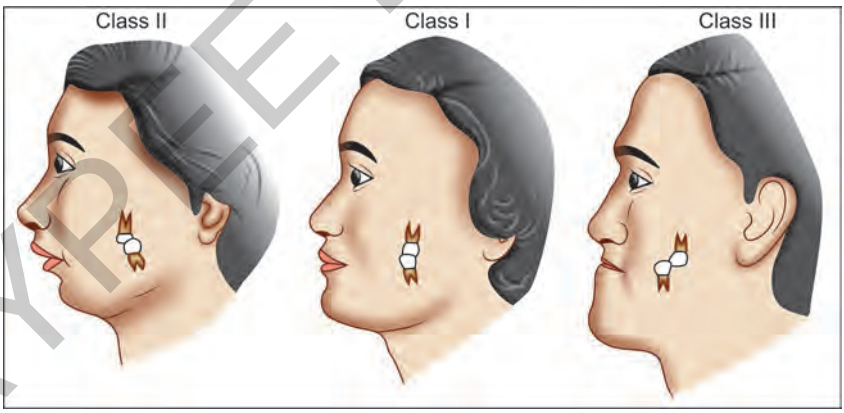

Fig. 3.1: Angle classification of occlusion

The typical correspondence between the facial-jaw profile and molar relationship is shown

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3.3. Traumatic Oral Injury

Traumatic oral injuries may be categorized into three groups:

1. Injuries to teeth.
2. Injuries to soft tissue (contusions, abrasions, lacerations, punctures, avulsions and burns).
3. Injuries to jaw (mandibular or maxillary fractures or both).

3.3.1. Injuries to teeth

- Approximately 10% of children between 18 months and 18 years of age will sustain significant tooth trauma.
- The three age groups with greatest predilection are:
  1. Toddlers (1–3 years), usually due to:
     i. Falls
     ii. Child abuse.
  2. School-aged (7–10 years), usually from:
     i. Bicycle
     ii. Playground accidents.
  3. Adolescents (16–18 years), often the result of:
     i. Fights
     ii. Athletic injuries
     iii. Automobile accidents.

3.3.1.1. Tooth fractures

I. Tooth fractures may involve:
   1. Enamel
   2. Dentin
   3. Pulp.

II. They may occur in:
   1. The crown
   2. The root of a tooth.

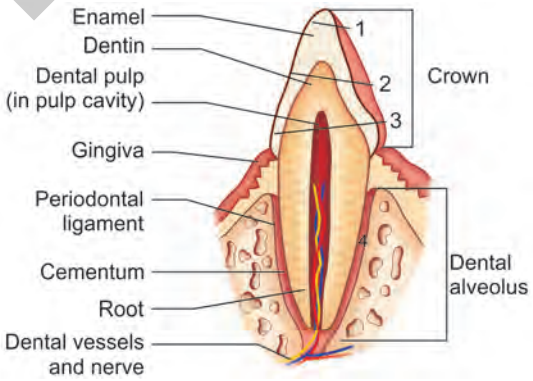

Fig. 3.2: Areas of tooth fractures

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3.4. Discolored Teeth

1. Neonatal hyperbilirubinemia (blue to black discoloration of the primary teeth).
2. Porphyria (red-brown discoloration).
3. Tetracyclines (brown-yellow discoloration and hypoplasia of the enamel).

3.5. Conditions Associated with Natal Teeth

1. Cleft palate
2. Pierre Robin syndrome
3. Ellis-van Creveld syndrome
4. Hallermann-Streiff syndrome
5. Pachyonychia congenita
6. Other anomalies.

3.6. Systemic Problems that Cause Aggressive Periodontitis in Children

1. Neutropenia
2. Leukocyte adhesion or migration defects
3. Hypophosphatasia
4. Papillon-Lefèvre syndrome
5. Leukemia
6. Histiocytosis X.

3.7. Differential Diagnosis of Oral Ulceration

Common	
Condition	**Comment**
Aphthous (canker sore)	Painful and circumscribed lesions; recurrences
Traumatic	Accidents, chronic cheek biter, or after dental local anesthesia
Hand, foot and mouth disease	Painful; lesions on tongue, anterior oral cavity, hands and feet
Herpangina	Painful; lesions confined to soft palate and oropharynx
Herpetic gingivostomatitis	Vesicles on mucocutaneous borders; painful and febrile
Recurrent herpes labialis	Vesicles on lips; painful
Chemical burns	Alkali, acid, aspirin; painful
Heat burns	Hot food and electrical

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Uncommon	
Condition	**Comment**
Neutrophil defects	Agranulocytosis, leukemia, cyclic neutropenia; painful
Systemic lupus erythematosus	Recurrent, may be painless
Behçet's syndrome	Resembles aphthous lesions; associated with genital ulcers and uveitis
Necrotizing ulcerative gingivostomatitis	Vincent stomatitis; painful
Syphilis	Chancre or gumma; painless
Oral Crohn disease	Aphthous-like; painful
Histoplasmosis	Lingual

3.8. Bilateral Enlargement of the Submaxillary Glands

Bilateral enlargement of the submaxillary glands can occur in:
1. AIDS
2. Cystic fibrosis
3. Epstein-Barr virus infection
4. Malnutrition.

3.9. Benign Salivary Gland Hypertrophy

Benign salivary gland hypertrophy has been associated with:
1. Endocrinopathies
2. Thyroid disease
3. Diabetes
4. Disorders of the pituitary-adrenal axis.

3.10. Xerostomia

Xerostomia (dry mouth) may be associated with:	
1. Fever	5. Mikulicz disease (leukemia infiltrates)
2. Dehydration	6. Sjögren syndrome
3. Anticholinergic drugs	7. Tumoricidal doses of radiation when the salivary glands are within the field
4. Chronic graft versus host disease	

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