

UNDERLYING CONDITIONS - IMPACT

1 - Healthy (minor ailments only). This would apply to children considered normally healthy. History may include any of: the usual coughs and colds, middle ear infections, sore throat illnesses, minor skin problems, mild developmental delay, roseola and chickenpox, appendix removal, broken bone etc. Such children need only occasional medical attention and are entirely well between illnesses. Healthy children are rarely hospitalized, except for trauma or appendicitis. No entry for “specific diagnosis” is required with this code.

2 - Neoplasm of any kind, past or present. Under specific diagnosis, indicate the particular kind of cancer and whether treatment continues or has been completed. Typical responses: ALL maintenance chemotherapy; ALL post BMT; Wilm’s cured. Please double check current immune status and record appropriately in question A.2.

3 – Underlying Cardiovascular disorder. Includes congenital heart or great vessel abnormalities, heart valve diseases (e.g. rheumatic fever), heart muscle diseases (e.g. chronic myocarditis), coronary artery disease (e.g. after Kawasaki disease), chronic hypertension, major arterio-venous hemangioma etc. Do not include problems so minor that no regular follow-up or disability is involved or conditions that have been cured by surgery (e.g. patent ductus arteriosus, closed or isolated ventricular septal defect, repaired). Note that some heart operations are only temporizing or partial repairs, not curative.

4 – Underlying Respiratory disorder. Refers to a persistent chronic problem requiring medical attention such as cystic fibrosis, bronchopulmonary dysplasia, laryngomalacia, permanent tracheostomy, chronic bronchitis, asthma etc. With asthma, do not include those needing only occasional attention (e.g. wheeze with some chest infections) and who rarely take asthma medications otherwise. Please double check current immune status associated with the respiratory disorder and record appropriately in question A.2. If a child has bronchiolitis at the time of admission for rotavirus or is in hospital for bronchiolitis at the time of the rotavirus infection, one should choose #16 **Relevant concurrent acute infection**.

5 – Underlying Hematologic disorder, non-malignant. Possibilities include sickle cell disease, thalassemia, other hemoglobin defects, chronic or intermittent neutropenia, chronic thrombocytopenia or platelet defects, aplastic anemia etc. Please double check current immune status and record appropriately in question A.2.

6 – Underlying Neurologic or developmental disorder. Include seizure disorders of any type (including benign febrile seizures), brain injury or malformation, spina bifida, muscular dystrophy, blindness, deafness, genetic disorders with a predominant or exclusive neurological component, developmental delay (except mild variations, within the range of normal, such as isolated delay in walking, to 18 months).

7 – Underlying Genitourinary or renal disorder. Include only continuing problems, not one-time infections (e.g. UTI) in anatomically normal children. Possibilities include anatomic defects predisposing to infection or hypertension, urethral narrowing, incomplete bladder emptying, neurogenic bladder, renal failure, previous kidney transplant etc. Please double

check current immune status associated with the disorder and record appropriately in question A.2.

8 – Underlying Gastrointestinal or hepatic disorder. Include only chronic problems such as malabsorption, cystic fibrosis, celiac disease, Hirschprung's disease, short bowel syndrome, chronic hepatitis B or C infection, cirrhosis, biliary atresia, storage disease of liver etc.

9 – Underlying Endocrine, nutritional or metabolic disorder. Examples of continuing problems include diabetes mellitus, Cushing's disease, morbid obesity, anorexia nervosa, galactosemia, PKU etc.

10 – Underlying Inherited immunodeficiency. Genetically determined immune disorders include defects in immunoglobulin production, complement levels, cell-mediated (T-lymphocyte) immunity defects, often in mixed forms and associated with multiple or severe infections, often with unusual organisms. May be part of a constellation of abnormalities, as in DiGeorge syndrome, Wiskott-Aldrich syndrome etc.

11 – Underlying Bone, joint or connective tissue disorder. Continuing problems here would include metabolic bone diseases, chronic arthritis, cartilage-based growth disorders (dwarfism), juvenile rheumatoid arthritis, systemic lupus etc. Please double check current immune status and record appropriately in question A.2.

12 – Underlying Skin disorder (severe only). Conditions needing special attention over an extended period would include burn injuries, eczema, blistering disorders, ichthyosis etc.

13 - Effects of injury. This category is meant to capture longer term sequelae of trauma, needing special attention, including CSF leakage after head injury, burns, chronic infection after fractures, mobility impairment, organ loss (lung or spleen removal) etc. Many of these possibilities could be entered under the affected organ system as an alternative.

14 – Underlying Multi-system disorder or syndrome. Conditions that involve multiple systems may be difficult to classify without this code. Examples include various genetic syndromes with multiple abnormalities (e.g. Down's syndrome), recent Kawasaki syndrome, **pre-existing** 'failure to thrive' etc. Please double check current immune status associated with the disorder or syndrome and record appropriately in question A.2. If the child has lost weight just because of the rotavirus infection, this should not be classified as failure to thrive. If the 'failure to thrive' is due to another known cause such as congenital heart disease, only include the underlying cause (congenital heart disease).

15 - Chronic infection present. HIV/AIDS, active tuberculosis, congenital CMV are examples in this category. Please double check current immune status associated with the infection and record appropriately in question A.2.

16 – Relevant concurrent acute infection. This code anticipates situations in which the severity of rotavirus infection was possibly facilitated by concurrent acute infection (such as

influenza etc). Code 16 may be used to indicate the presence of co-morbidity of specific nature (influenza, RSV infection, bronchiolitis etc.). For situations involving recent or concurrent trauma, use code 13 (effects of injury) and for those involving recent surgery, use the appropriate body system code (e.g. for recent neurosurgery, use code 6=neurological/developmental disorder and add the details).

17 – Prematurity. This code should be used when the child was born prior to 36 weeks gestation (using the best available estimate), if the child is still in the first year of life. Under “specific diagnosis” enter the actual gestational age (weeks). A second code can be used to describe complications of prematurity e.g. 4 – Respiratory disorder: bronchopulmonary dysplasia (BPD).

18 - Other. For significant medical problems that don’t fit in the categories provided, such as behavioural risks (e.g. drug abuse) or psychiatric disorders (e.g. autism).

For congenital malformations/genetic disorders choose the above code that best describes the problem. For example:

cystic fibrosis → 4 (respiratory disorder)

cleft palate/bowel atresia/imperforate anus → 8 (gastrointestinal disorder)

congenital thyroid defect/diabetes → 9 (metabolic disorder)

Immune Status

1 - Normal immunity for age can be used for children presumed to be immunologically normal or shown to be so by testing.

2 - Immunosuppressed by cancer treatment can apply to any form (chemotherapy or radiation) or stage (induction, maintenance) of chemotherapy, ongoing or completed within the previous 3 months.

3 - Post-bone marrow or stem cell transplantation should be selected at any point following this procedure.

4 - Post-solid organ transplantation should be selected at any point following this procedure.

5 - Inherited immune deficiency applies to any defined, inherited defect in immunity (immune globulin deficiency, complement deficiency, T-lymphocyte defects, mixed disorders) as indicated in A.1.10 definition.

6 - Immunosuppressed by corticosteroids and/or other current medications (like cyclosporine, azathioprine, methotrexate etc.) given for reasons **other than** cancer treatment or transplantation (A.2.2 to A.2.4 above). No dosage-based criteria are required apart from the drugs being taken orally and continuously. Do not include inhaled or topical treatment with corticosteroids.

7 – HIV infection present but associated with normal immune functions, with or without antiretroviral medications.

8 - AIDS, at any stage of disease associated with impaired immune function.

9 - Spleen dysfunction or absence. Absence may be congenital (including polysplenia) or post-surgical. Dysfunction may exist with sickle cell disease or thalassemia major depending on age and severity of disease. It may be shown to exist (Howell-Jolly bodies on peripheral RBC smear or imaging studies) with various diseases causing spleen enlargement (storage diseases, congestion).

10 - Low serum immunoglobulin levels, acquired. Depletion of immunoglobulins may occur from losses in burn wounds, nephrotic syndrome and intestinal lymphangiectasia. Local laboratory norms can be used to define abnormally low levels.

11 – Neonatal immaturity (or effects of prematurity). Use this code for any case that begins during the first 28 days after birth, a period during which immune responses are blunted. This code is also used for premature children (defined in A1) within the first year of life that have affected immune function.

12 – Neutropenia (absolute neutrophil count <1000), acute or chronic. Use this code for neutropenia that is not related to cancer or immunosuppressive chemotherapy (A.2.2 above).