prognosis of bacterial meningitis. Survivors can experience significant physical and neurologic sequelae, including hearing loss, learning disability, and seizure disorder (Chandran, Herbert, Misurski, et al, 2011).

Clinical features that are associated with an increased risk of developing neurologic complications include young age, infection with *S. pneumoniae,* CSF with more than 10^7 colony forming units/ml or low CSF glucose content, delay in antimicrobial therapy for longer than 2 days, prolonged or complicated seizures, focal neurologic deficits, and adequacy of response to infection (Chandran, Herbert, Misurski, et al, 2011). The residual deficits in infants are primarily a result of communicating hydrocephalus and the greater effects of cerebritis on the immature brain. In older children, the residual effects are related to the inflammatory process itself or result from vasculitis associated with the disease.

Quality Patient Outcomes: Bacterial Meningitis

- Early recognition of signs and symptoms of meningitis
- Antibiotics administered as soon as diagnosis is established
- Cerebral edema prevented
- Exposure prevented by early isolation
- Side effects managed
- Neurologic sequelae prevented

Prevention

Vaccines are available for types A, C, Y, and W-135 meningococci and Hib. Meningococcal polysaccharide vaccination is routinely given to children 11 to 12 years old, with a booster at 16 years old; however, children 2 to 10 years old may be given the vaccine if they are at increased risk for meningococcal disease (Prober and Matthew, 2016). Routine vaccinations for Hib and pneumococcal conjugate vaccines are recommended for all children beginning at 2