

REYE SYNDROME

(Reye's Syndrome, Reye-Johnson Syndrome)

Reye Syndrome is no longer a reportable condition in Ohio. The material presented here is for informational purposes only.

AGENT

None known. Most cases follow a common viral illness, most frequently influenza or varicella.

SIGNS AND SYMPTOMS

Reye Syndrome (RS) is an acute illness characterized by persistent vomiting and neurologic dysfunction, sometimes progressing to delirium, coma and death. The typical patient is recovering from a viral illness when onset of severe vomiting occurs. This vomiting, usually considered the onset of RS, is persistent, uncontrollable and very often unresponsive to antiemetic medication.

Severe vomiting will be accompanied by a change in mental status, the classic manifestation of RS. Manifestations range from lethargy to delirium, seizures and respiratory arrest. If left untreated, or if treatment is delayed, the case may progress through deepening levels of coma to death. Mortality is related to the stage of coma at hospital admission. Some severe cases who survive may experience varying degrees of physical and/or neurologic impairments.

DIAGNOSIS

Diagnosis is based on clinical presentation as well as laboratory findings (see case definition). There is no single test diagnostic for RS.

EPIDEMIOLOGY

Source

No specific organism or agent has been found to be causal for RS. Epidemiologic research has repeatedly demonstrated an association between Reye syndrome and ingestion of aspirin during antecedent chickenpox and respiratory illnesses.

Occurrence

RS typically occurs as isolated cases, although outbreaks of RS have been reported in association with increased influenza activity, particularly influenza B and influenza A (H1N1). RS follows the seasonality of influenza and chickenpox illness. Almost all RS cases are young children, adolescents and teenagers.

The average annual incidence of RS has been decreasing steadily since 1980 when the association between aspirin ingestion and RS was first reported. Much of the decline in the reported incidence of RS in the United States is thought to be attributable to decreases in the use of aspirin in treating children with influenza-like illness or chickenpox.

Period of Communicability

RS is not communicable person-to-person. There is no carrier state.

PUBLIC HEALTH MANAGEMENT

Case

Treatment

Since the major cause of death is cerebral edema, therapy directed at lowering increased intracranial pressure is indicated.

Isolation

None.

Prevention and Control

Physicians, parents and older children who self-medicate should be aware of the increased risk of RS associated with using aspirin to treat influenza-like illness or chickenpox. An antipyretic agent other than aspirin should be used to treat children, including teenagers, with these illnesses.