This paper analyzes the impact of lockdown, social distancing, and isolation of symptomatic patients on the transmission of infectious respiratory diseases. The study uses predictive mathematical models to explore disease progression and evaluate control strategies. The results show that the disease-free equilibrium is locally stable but globally unstable, indicating that while these measures can slow the infection, they alone cannot eradicate the disease. Local stability was assessed using the determinant-trace matrix method, while global stability was analyzed through the Lyapunov-Krasovskii method, revealing instability around the global endemic equilibrium. Bifurcation analysis was conducted to identify critical points where small parameter changes could cause significant shifts in system behavior. Numerical simulationswere performed using Python's NumPyand PyPlotlibraries to understand the dynamics of disease spread and evaluate various intervention strategies. The simulations demonstrated how changes in control measures affect the disease's trajectory. In the absence of effective treatments or vaccines, the findings suggest that social distancing, lockdowns, and isolation are vital for controlling the spread of the pandemic and reducing mortality. These strategies will be essential for mitigating the impact of the disease in the short term