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Mathematical Models of Dynamics Transmission and Control of Ebola. Preliminary report.

Ebola is a deadly disease and it has spread quickly. Previously in West Africa thousands of people have lost their lives due to the disease. The movement of infective individual poses a danger. To understand the effect of those infective immigrants, we have modeled the Ebola Virus Disease (EVD) by using the SEIRS deterministic model. Our analysis suggest that the Ebola epidemiological features and its transmission dynamics may remain constant in the future. Furthermore, we simulated our proposed model to confirm the of the analysis; our simulation result suggests that the disease will remain in the population and it will not completely die out. This result may be consistent with the fact that there is still no specific therapy or vaccine for the EVD. (Received September 03, 2018)