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Evaluation of the Effect of Isolation in the Modeling of Smallpox Epidemic Development in Megacity

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Deliberate infecting of large groups of people with particularly dangerous infectious diseases agents as a result of bioterrorist attacks is still considered as an actual risk factor. Scenarios of development and aftermaths of smallpox epidemic in a large city are compared using mathematical model developed in SRC VB "Vector". These scenarios provide that different number of people have become infected with smallpox and capacities of isolation wards with high level of protection vary. The results of the modeling suggest that lack of the one, even very important resource, can be partially compensated by implementing other counter-epidemic measures (large-scale vaccination, detection of the contacts and their monitoring). Thus when planning counter-epidemic measures one must take into consideration the resource limitations as a whole.