

disposal. The objective of this paper is to select the best infectious waste treatment alternative by Sustainability Assessment of Technologies methodology (SAT).

Methods: This descriptive survey was conducted in 2018. The study area was four public hospitals in Ardebil. At first, the status of hospital waste management was investigated in hospitals. Then, SAT was used to select the best method for treating the infectious wastes of the hospitals. Sat methodology consists of three main components, including screening, scoping and detailed assessment. In screening, different infectious waste treatment alternatives undergo screening using the finalized environmental and technical criteria, with the participation of 10 stakeholders identified. In scoping stage, outsourced technologies were evaluated quantitatively and qualitatively using criteria related to the technical, economic, social and the environment in a specialized methodology questionnaire with the participation of 25 specialists in the field of hospital waste management. In detailed assessment, to rank the different technologies of infectious wastes treatment, a weighted sum matrix method was used.

Finding: In this study, In order to choose the technology of treatment infectious waste, based on the technical, economic, social and environmental aspects, the environmental aspect has the highest score and the social aspect of the lowest scores. Finally, based on the above criteria, Autoclave with a shredder (64.53) have the highest score, and hydroclave (63.32), autoclave (60.61), central incineration (55.12) and chemical treatment (54.25), were ranked second to fifth, respectively.

Conclusion: Most research participants emphasized the need for an autoclave with a shredder in treatment of infectious hospital waste in Ardabil. However, the environmental, economic criteria and other aspects of treatment infectious hospital waste should be considered.

Keywords: Hospital, Infectious waste, treatment, SAT methodology, Ardabil