In order to cope with the future challenges of the health care sector, there is an urgent need for improving efficiency at hospitals. The study presents a framework enabling health care managers of improving the in-house logistics. The distinctiveness of the framework is the way in which it relates technology, logistics, structure and procedures to efficiency. Changing one factor e.g. technology, initiates an iterative loop focusing on change in the related factors in order to obtain the optimal efficiency. The search for an optimal efficient solution is the driving force of the framework, and will secure one iterative circle followed by another in an endless journey. The framework represents innovation as a broad solution where iteration between important factors secures an optimal solution. The study is performed as a case study with close relations to the staff at an emergency department at a Danish hospital. The framework is tested on the blood sample logistics between the emergency department and laboratory with the goal of enhancing the efficiency of the emergency department.