Management of Accidents and Surgical Emergencies in the Greek Islands: The Case of the Cyclades

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Summary : This study investigates the management of emergency surgical cases in the Cyclades islands, where seasonal population shifts and geographic isolation challenge healthcare delivery. It evaluates the current response mechanisms and infrastructure, highlighting limitations in local capabilities and medical transport. The findings aim to inform targeted improvements for faster and more effective emergency care in remote island settings.

INTRODUCTION

The geographical particularities of the Greek islands and the limited access to specialized healthcare services make the management of accidents and emergency cases a complex challenge. The Cyclades, characterized by intense tourism and periodically low population density, represent a notable example in which the provision of emergency surgical care depends heavily on the speed of response through existing local infrastructure and/or medical transport.

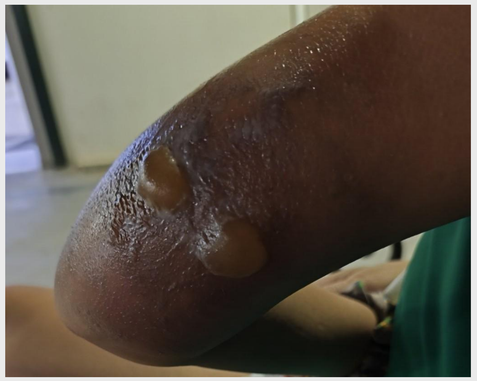
This study examined the current procedures for managing surgical emergencies in the Cyclades, with the objective of identifying challenges, evaluating the effectiveness of existing mechanisms, and proposing targeted improvements.

METHODS AND MATERIALS

A retrospective analysis was conducted using patient records from Syros General Hospital for the period 2024–2025. Data collected included the nature of emergency cases, response times, availability of surgical specialties, and the frequency of medical transfers, as documented by frontline healthcare professionals and administrative reporting tools.

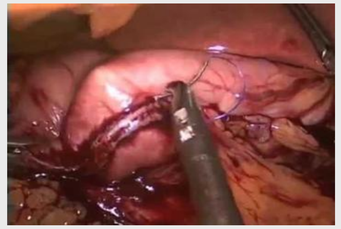
RESULTS

Findings showed that 62% of emergency cases required transfer, with an average waiting time of 3.2 hours. These cases included acute abdomen, hollow organ perforations, colonic intussusception, traumatic organ ruptures, and other urgent conditions.



RESULTS

The lack of specialized and trainee surgeons across most islands, combined with unstable weather conditions, further strained the delivery of timely care. Primary Healthcare Units played a key role in stabilizing patients prior to transfer.



DISCUSSION

The high proportion of emergency cases requiring transfer from the Cyclades highlights the significant challenges posed by limited on-site surgical capacity, geographic isolation, and weather-related transport delays. These factors increase the risk of complications for time-sensitive conditions and place substantial pressure on regional referral hospitals. Primary Healthcare Units play a crucial role in stabilizing patients, but their effectiveness is hindered by staffing gaps and infrastructure limitations. Strengthening telemedicine support, reinforcing the surgical workforce, and optimizing transfer protocols are essential steps toward improving the timely and safe management of emergencies in island settings.

CONCLUSIONS

Strengthening healthcare units through telemedicine services, enhancing workforce staffing, and improving transfer protocols are essential components for the effective management of surgical emergencies in the Cyclades.

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