

## Enhancing Wayfinding and User Experience in Hospital Environments: A Study of University Medical Centre Ljubljana

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**Abstract :** Hospital buildings are complex public environments characterized by intricate functional arrangements and architectural layouts. Effective wayfinding is essential for patients, visitors, students, and staff. However, spatial orientation planning is often overlooked until after construction. While these environments meet functional needs, they frequently neglect the psychological aspects of user experience. This study investigates wayfinding within complex urban healthcare environments, focusing on the influences of spatial design, spatial cognition, and user experience. The inherent complexity of these environments, with extensive spatial dimensions and dispersed buildings, exacerbates the problem. Gradual expansions and additions contribute to disorientation and navigational difficulties for users. Effective route guidance in urban healthcare settings has become increasingly crucial. However, research on the environmental elements that influence wayfinding in such environments remains limited. To address this gap, we conducted a study at the University Medical Centre Ljubljana (UMCL), Slovenia's largest university hospital. Using a questionnaire, we assessed how individuals' perceptions and use of outdoor hospital spaces with a diverse sample (n=179). We evaluated the area's usability by analyzing visit frequency, stops, modes of arrival, and parking patterns and examined the visitors' age distribution. Additionally, we investigated spatial aids and the use of color as an orientation element at three specific locations within the medical center. Our study explored the impact of color on entrance selection and the effectiveness of warm versus cool colors for wayfinding. Our findings highlight the significance of graphic adjustments in shaping perceptions of hospital outdoor spaces. Most participants preferred visually organized entrances, underscoring the importance of effective visual communication. Implementing these adaptations can substantially enhance the user experience, reducing stress and increasing satisfaction in hospital environments.

**Keywords :** hospital layout design, healthcare facilities, wayfinding, navigational aids, spatial orientation, color, signage

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