



Development of MRI screening Tool for Individuals with Communication Barriers

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Introduction

Individuals with communication barriers often face difficulties during MRI safety screening for implants, which can pose significant risks to both patients and staff; developing a specialized screening tool tailored to these patients aims to enhance their diagnostic experience and ensure safety throughout the MRI procedure.

Objectives

- To develop screening tool tailored to patients with language barrier, hearing, and speech impairments.
- To enhance patient's experience undergoing MRI procedure.
- To ensure patients and staff safety throughout the MRI procedure.

Methods

Common communication barriers and safety concerns were identified through feedback from MRI radiographers, leading to the development of the MRI screening tools designed.

The screening tools include:

1

Human anatomy pictorial guide for patient to identify implant and pinpoint area of surgery.

2

Poster of removable objects prior to MRI procedure

3

Compilations of implants/ devices images for easy identification.

5

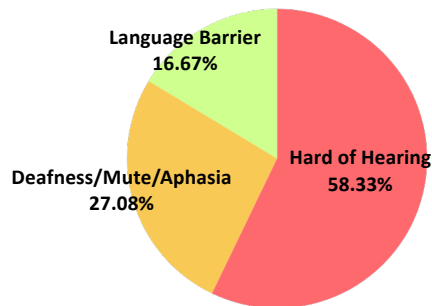
Ask + Write Communication Tool using a laminated page.

4

MRI Safety questionnaires available in four main languages. (English, Chinese, Malay and Tamil.)

Results

The developed tools demonstrated promising results



Patient Demographics and Utilization of MRI Screening Tools

Communication Barrier	Number of Patients	Percentage (%)
Hard of Hearing	28	58.33
Deaf/Mute/Aphasia	13	27.08
Language Barrier	8	16.67
Total	49	100

100%	17 radiographers participated in our survey poll. 100% - Responded that their confidence level increased in screening this group of patients 100% - Found the tool useful
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Period	Activity
June 2022 - Dec 2022	Development of MRI Screening Tools
Jan 2023 - Jan 2024	Usage and Data Collection

Impacts and Benefits of the MRI Screening Tools

Impact/Benefit	Description
Enhanced Communication	Radiographers can communicate with patients more confidently and with greater ease.
Accessibility	Questionnaires are printed in larger fonts, laminated, and available in English, Chinese, Malay, and Tamil. This is beneficial for elderly patients with presbyopia, hard of hearing, mute patients, and those who do not converse in English.
Efficiency	Reduced frustration and time wasted searching for colleagues who speak the patient's language.
Visual Aid	Pictorial guides and images of common implants help radiographers easily identify and confirm implants.

Conclusion

The MRI screening tools, used from January 2023 to January 2024, significantly improved communication and risk assessment for patients with communication barriers. They enhanced the ability to obtain medical histories and identify implants, leading to more accurate risk assessments. High user satisfaction and increased confidence from radiographers highlight the tools' effectiveness. Overall, these results indicate a promising advancement in the inclusivity and safety of MRI procedures for individuals with communication barriers.