

Stryker

Dissertation 2024

PROJECT INTERN : SOUMIK MAITY

Project On : To map and assess the present use of ICG in Fluorescence Imaging for surgical visualization in oncology in comparison with other existing dyes present in the market in tier 2 cities, e.g., Jaipur, Bikaner etc. and strategize ways to make it more common and convenient to surgeons.

Mission

Together with our customers,
we are driven
to make healthcare better.

Values

Integrity

We do what's right

Accountability

We do what we say

People

We grow talent

Performance

We deliver

PROJECT GUIDE :



**Chhattarpal Singh,
Project head, Regional
Sales Manager,
Endoscopy**



**Deepak Singh
Chauhan, Project
mentor, Area Business
Manager, Endoscopy**

Project Objective :

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To map and assess the present use of ICG in Fluorescence Imaging for surgical visualization in oncology in comparison with other existing dyes present in the market in tier 2 cities, e.g., Jaipur, Bikaner etc. and strategize ways to make it more common and convenient to surgeons.



VS



Research Methodology :

Qualitative research methodology and Random Sampling technique is performed for complete the research.

Serial no.	Targeted groups	Objective
1.	Total number of doctors are 20; and all of them are Surgical Oncologist.	<i>To collect their insights through qualitative questionnaire to understand the presence of ICG in comparison with other dyes i.e., Methylene blue & Technetium-99m presence in the market for fluorescence imaging for surgical visualization in Oncology.</i>

Key Findings :

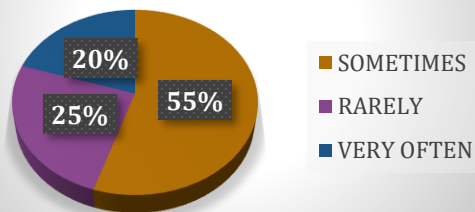
According to the Onco-Surgeons,

- Indocyanine Green (ICG) is preferred over methylene blue and technetium-99m for certain medical imaging applications due to its safety, near-infrared fluorescence properties allowing for deep tissue penetration, real-time imaging during surgeries.
- Methylene blue is valued for its low cost and broad availability; while technetium-99m is advantageous for its gamma emissions, short half-life, and various imaging agents in nuclear medicine.
- While methylene blue and technetium-99m have their own advantages in other medical applications, they lack the specific benefits that make ICG a preferred choice in the surgical oncology field.

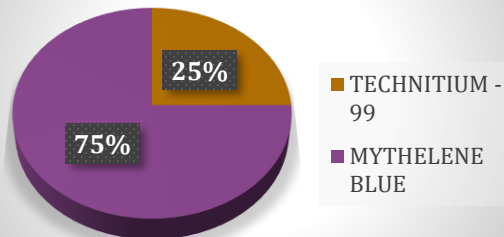
Understanding the Market Based On Primary Research :

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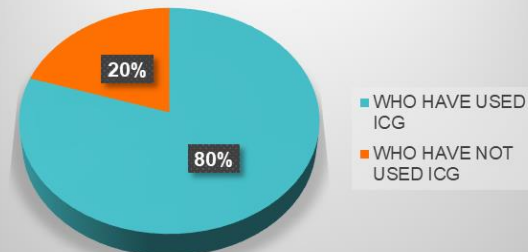
using of dyes for visualization



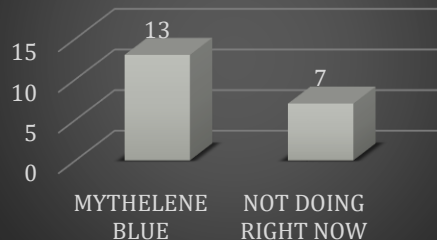
What dye is using?



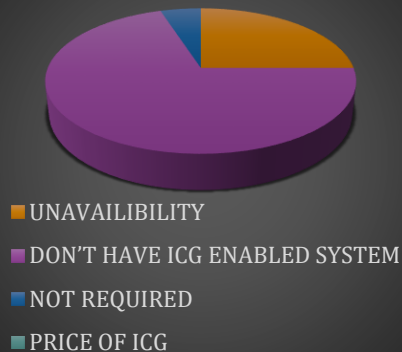
ICG Usage by surgeons



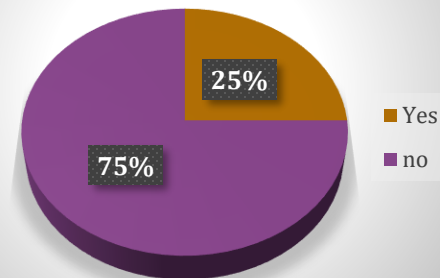
Sentinel Lymph node Mapping



WHY THEY ARE NOT USING

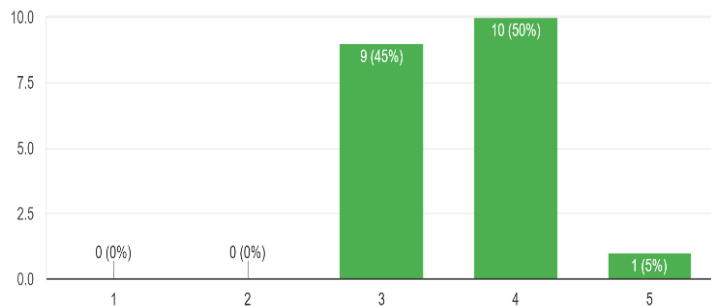


Stryker's Partner Consulted Previously Regarding ICG



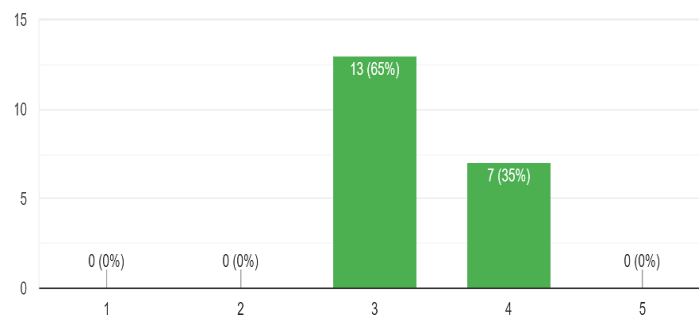
8. If you have used ICG can you rate it in 1 to 5

20 responses



9. Rate Tectnetium-99 in 1 to 5

20 responses



Situation On Ground :

According to the Primary Research data most of the Onco-Surgeons in Jaipur are using Methylene Blue and Some of them are using Technitium-99.

Methylene Blue
users are 75%

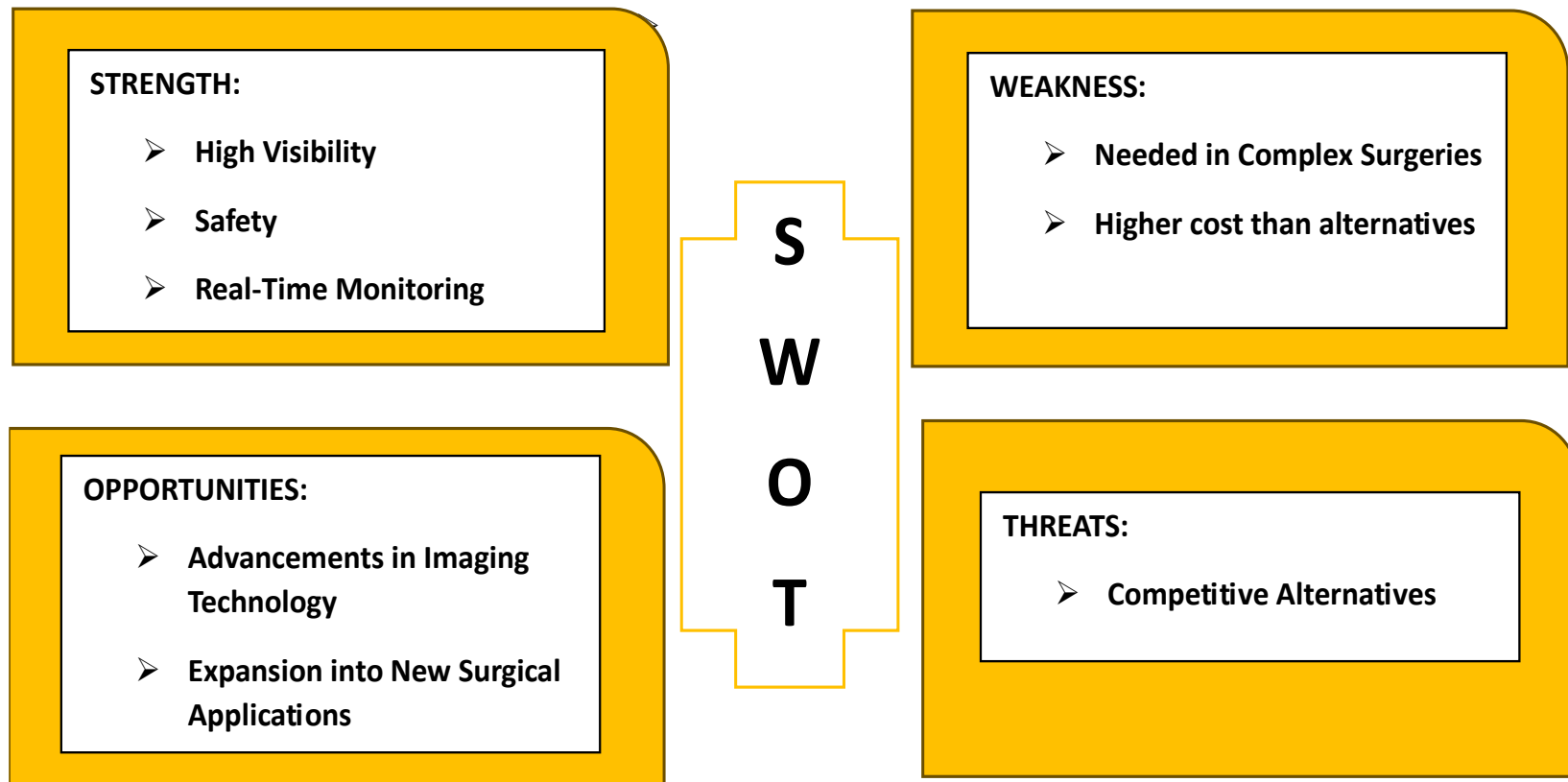
Technetium-99
users are 25%

Each doctors have used ICG but they are not continuous user; Due to budget of the hospital they have to use the methylene blue.

But according to all of them ICG is the best solution for Sentinel Lymph Node mapping.

So, We Have a very Large market ;because according to the customers ICG is better than its competitors.

SWOT Analysis:



Problem Statement :

- **Lack of Personal experience of Using ICG in Oncology Surgeries .**
- **ICG is more expensive than Methylene Blue & Technetium-99.**
- **Missing of ICG enabled Systems.**
- **Unavailability of ICG in Hospitals.**
- **Needed in complex Surgeries.**



Plan Of Action :

- **Converting the non-ICG users to ICG users by selling of ICG-enabled systems Like 1588 or 1688.**
- **Encourage Surgeons More to Perform Surgeries with the help of ICG.**
- **Though Product has its own strong point, that it can easily make product differentiation with its competitors, but we also focus on Marketing more; so that who are not properly aware of the product they can also get idea of ICG.**
- **Give Discount on Bulk orders, so that it can be spread in the market and easily available.**
- **Convert one time buyer to repeated customer by selling more ICG-enabled systems.**

Learning From The Internship :

- **Broader Understanding of medical device industry**
- **Help to upgrade technical skills as well as soft skills**
- **Helps to gain insights about broader healthcare ecosystem**
- **Helps to understand the industry trends and emerging technologies**
- **Gives me the opportunity to work in the field of Surgical Oncology and help to increase knowledge about different dyes used in the field**
- **Gives me the opportunity to establish professional networking with experienced industry professionals.**

Thank You