

نحن نهتم
We Care

Case Study 07: REFERRALS

Twenty-six referral pathways under the microscope



JHAH's five-year Clinical Services Plan
Transformation Project 3Bvi

Project Champions
Dr. Nabel Al Faify and Mr. Wissam Zein



مركز جونز هوبكنز
أرامكو الطبي
Johns Hopkins
Aramco Healthcare



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Project Details



The Objective

- To optimize all referrals from Primary Care to Specialty Care, ensuring they are clinically appropriate, consistently applied and follow a clear pathway.

The Priorities

- Identify two to three pathways per department for priority attention.
- Review referral practices recommended by respected professional bodies and experts.
- Build pathways into Epic, educate care physicians and rollout.

The Timeline

- **Project kick-off:** April 2023.
- **Project closure:** March 2024.

The Project Team

Champions:

- Dr. Nabeel Al Faify
- Mr. Wissam Zein

Sponsor:

- Dr. J.J. de Gorter

Team members:

- | | |
|----------------------|--|
| • Dr. Mohammed Abdul | • Ahmed Zahrani |
| • Rawan AlJeheiran | • Epic SMEs |
| • Nada AlKhalifa | • Specialty and Primary Care SMEs from Dhahran and districts |
| • Dalal AlMohaison | • Train the Trainer champions from Dhahran and districts |
| • Sana AlAmoudi | |
| • Daniel Bregaglio | |
| • Somaya Hajri | |
| • Yussra Ibrahim | |

For more information

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About the Clinical Services Plan



Johns Hopkins Aramco Healthcare (JHAH) serves more than 140,000 Aramco employees, their relatives and retirees with a comprehensive range of inpatient and outpatient services. JHAH has carried forward the legacy set by Saudi Aramco of healthcare for all, putting caring for its community at the heart of everything it does.

In 2023, JHAH launched its five-year Clinical Services Plan (CSP). The CSP was developed in response to changing patient expectations and the realization that JHAH must evolve if it is to survive and thrive. The Plan's vision is that JHAH will become the Kingdom's first choice for outstanding integrated healthcare.

The CSP contains 16 strategic objectives to deliver against five goals (service excellence, access, people, sustainability and reliability), and is supported by four delivery principles (accountability, pace, pragmatism and outcomes).

Referrals was included as Objective #3B(vi) in the CSP.

Project Background



Since its formation, the JHAH has provided a wide range of high-quality healthcare services to Aramco employees. However, in the post-pandemic era, there was a growing perception that access to JHAH's specialty care is slow and over-complicated compared with other providers under insured arrangements. As Aramco's first choice provider of healthcare and with Aramco's commitment to provide healthcare services that are highly valued and appreciated by its workforce, this perception was of concern to Aramco and JHAH executives and led to its inclusion in the independent review of access policies and procedures commissioned in mid-2023.

The review, undertaken by Greybeard Healthcare, included 30 recommendations underpinned by four principles: raising productivity and capacity, improving communication and learning, modernizing specialty

patient engagement, and embedding consistent standards. Of the recommendations, one of those with the greatest potential benefit related to referrals, in particular: “To strengthen guidelines around referrals to reduce clinical variation and inappropriate referrals.” The basis for this recommendation was analysis demonstrating considerable variation in referral rates to Specialty Care from Primary Care. In addition, the report identified issues with discharge processes (“Primary Care receives information of variable quality following discharge from Specialty care, resulting in inefficiencies and a low threshold for re-referral; there is a low rate of discharge compared with international benchmarks.”)

The CSP Steering Committee (the oversight committee for the delivery of all projects under the CSP and chaired by Dr. Michael Walsh, Chief Executive of JHAH) decided to establish a project to focus on referral practices, with the deep dive specifically into discharge arrangements allocated to a different project. This secondary project commenced only after completion of the project addressing the issues on referrals.

The scope of the referral project was clear from the outset. It would scrutinize referral arrangements for all the major diagnoses in each of the following departments: the Surgical Department, the Medicine Department, the Women and Child’s Department, the Cardiology Department, and the Anaesthesia Department. Analysis suggested that focusing the work on 26 diagnoses across these five departments would provide the greatest short-term impact relative to the work required.

Delivering the Project



A project team, led by Clinical Administrator Mr. Wissam Zein, was assembled in April 2023. During the initial kickoff meeting, the team decided to meet weekly for the next six months, recognizing the scale of the task and the need to maintain momentum.

An initial task was shortlisting the conditions addressed within the timeframe. To ensure a robust and transparent process for making this selection, the team applied five selection criteria and gathered data about the current situation mapped against each criteria. The criteria were:

- The absolute number of referrals per annum.
- The rate of increase in the number of referrals.
- The incidence of inappropriate referrals.

- The inconsistency in referral rates by physician.
- The length of time since the previous review of pathways.

As a result, the following conditions were shortlisted:

- Pain and neurosurgery referrals (back pain, degenerative disease, neck pain).
- Mental health referrals (depression, anxiety).
- Dermatology referrals (acne, eczema).
- ENT referrals (tinnitus, sinusitis, snoring).
- Urology referrals (BPH, erectile dysfunction).
- Neurology referrals (headache, migraine).
- Cardiology referrals (palpitation, hypertension)
- GI referrals (constipation).
- Vascular referrals (varicose veins).
- Eye referrals (refraction error).
- Women and Child referrals (menstruation-related complaints, short stature, vagina-related complaints).
- Orthopedic referrals (knee and shoulder pain).
- Plastic surgery referrals (post bariatric surgery).
- General surgery referrals (hemorrhoids).

During project mobilization, the final task was to agree a standard format for the referral pathways, and make this available to all the subject matter experts (SMEs) involved from different disciplines. This was necessary due to the wide range of conditions being analyzed, and the large number of experts providing input. If each referral pathway was laid out with unique formatting, this would cause unnecessary confusion for the referring physicians. Consistency ensured easy identification of the information required when checking the details in real time, often with the patient sat alongside.

With the 26 conditions agreed, the project team commenced implementation with the following principles designed to maximize the likelihood of completing the task within the timeframe:

- A worked example: Dermatology referrals were selected as the first condition for pathway development; the resulting pathways were used as an example of a ‘desired outcome’, for reference by other condition experts when their turn arrived.
- A phased approach: The 26 conditions were grouped into three phases, each phase lasting six to eight weeks. This helped to spread the workload evenly over the period, and enabled continuous learning.



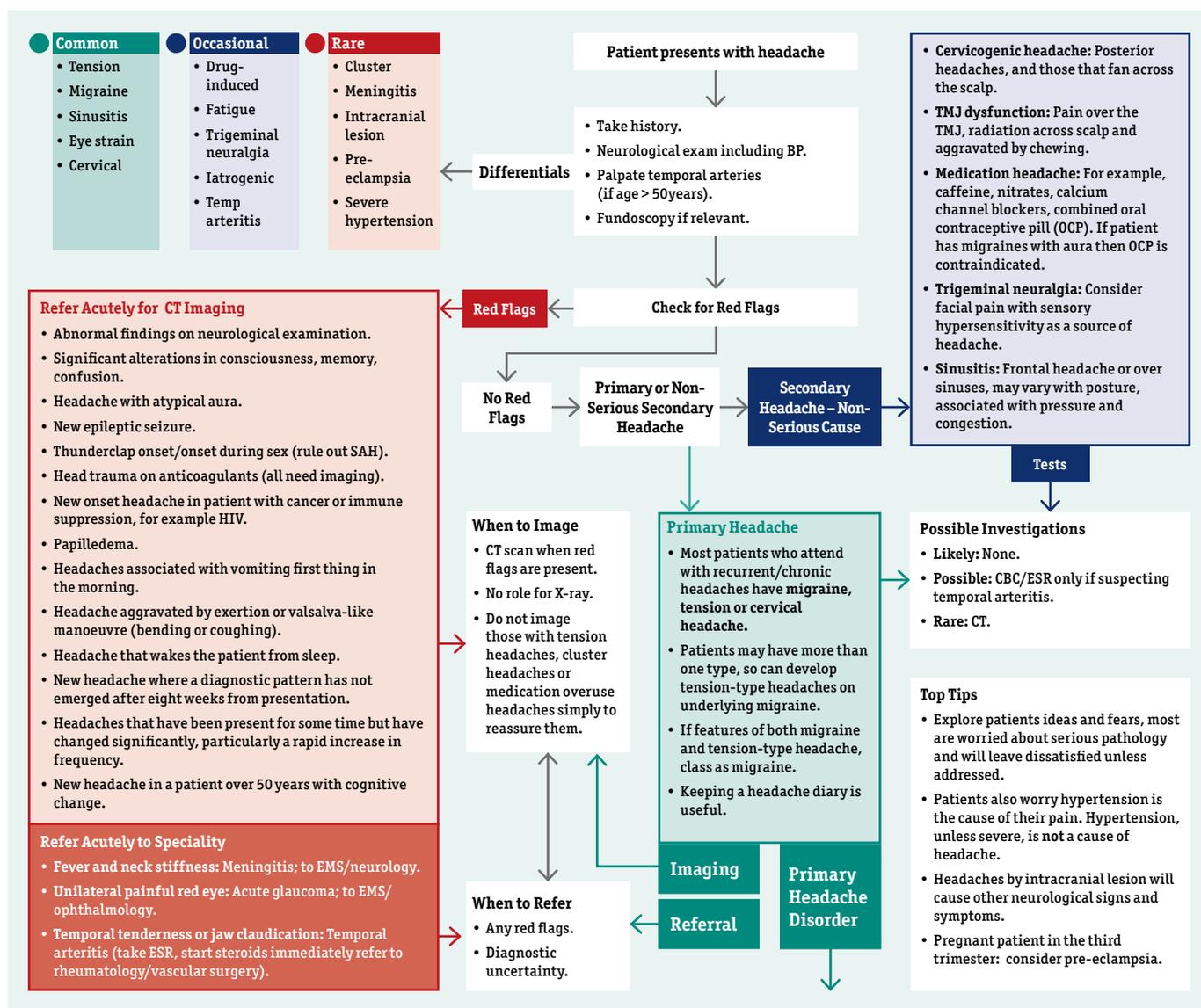
- An international reach: For each condition, the SMEs consulted best global practice, for example connecting with relevant professional medical bodies. These international benchmarks were noted and documented for ease of access by anyone who might need to check the source material in future years.
- A single point of contact within primary care: Dr. Mohammed Abdul, a highly experienced primary care physician, was the primary care contact point for all discussions with specialty SMEs.
- Early involvement of Epic programmers: The project team realized hardwiring pathways into Epic (the software used by JHAH for managing patient records) was the best route to ensuring compliance. Two senior members of the Epic programming team joined the project and attended weekly meetings. This allowed them to advise on the pathway decision

trees most straightforward to systematize, and be active participants in any decisions affecting user experience.

- Communication with the entire primary care team: Once a critical mass of referral pathways was designed, an update meeting was scheduled with JHAH's entire team of primary care physicians to brief them on the activity impact on their role. The meeting was extremely positive; the physicians recognized the pathways would both enhance the quality of the referrals they are making and enable them to use their time more productively through automating much of the referral information that was typed in long form on each occasion.

The referral pathways were then designed and take the form of rigorous, evidence-based decision trees. A typical example – for symptoms relating to ‘headaches’ – is shown in Figure One.

Figure One: Referral pathway example – headache



The Outcome



The average monthly reduction in referral volumes, after implementation of the referral pathways, was 850. Prior to the changes, the referral rate ranged from 9.8 percent to 12.7 percent over an eight-month period. After the changes, the referral rate fell to 8 percent to 9.3 percent.

Once all 26 referral pathways had been agreed and built into Epic, the project was formally closed (this meant creating a mechanism within ongoing operations, for the future creation of new pathways and modification of existing pathways). On the final day of the project, Dr. Nabeel and Mr. Zein hosted a lunchtime celebration to thank everyone – clinicians and non-clinicians – who had contributed to the success of the initiative; this was attended by a number of members of the JHAH senior leadership team.

“There’s a huge amount of publicly available material about referrals, and it’s being refined all the time as new evidence comes to light. This project showed the benefit of accessing what already exists, rather than assuming we have to create everything ourselves from scratch.”

Mr. Zein adds: “It’s clearer to me than ever before that the key to quality outpatient referrals is pathways and referral criteria that are based on the latest national and international standards. Adhering to these pathways is a boost for operational efficiency and benefits access and outcomes. It’s essential that any initiatives to optimize referrals must be complemented by a robust IT infrastructure. In addition, medical practices are constantly being fine-tuned – so, regardless of how impressive they might seem, we must move forward in a spirit of continuous improvement and periodical updates.”

Lessons Learned



As part of the project closure process, team members were encouraged to reflect on their experience.

Comments included:

“This project demonstrates how much we can achieve when we approach tasks in a spirit of collaboration. Acting in isolation, neither Primary Care nor Specialty Care could have achieved such an impressive result.”

“When asking for contributions from clinical subject matter experts, it’s important to ask the question with the greatest possible clarity – in order to use their time productively.”



About the Project Champions



Dr. Nabeel Al Faify

Dr. Al Faify is the Lead Clinical Administrators at Johns Hopkins Aramco Healthcare.

He was educated at the Kind Saud University, Riyadh, KSA (Bachelor's Degree in Radiological Technology), University of Surrey, Guilford, UK (Master's Degree in Medical Physics), and University of Phoenix, Phoenix, USA (Degree of Doctor of Health Administration).

Before joining JHAH, he was a Senior Medical Physicist at the Saudi Aramco Medical Services Organization.



Mr. Wissam Zein

Mr. Zein is the Clinical Administrator of the Surgery Department at Johns Hopkins Aramco Healthcare.

He was educated at Heriot Watt University, Edinburgh, UK (Masters in Business administration) and the American University of Beirut, Beirut, Lebanon (Bachelor's Degree in Medical Laboratory Technology and Bachelor's Degree in Chemistry).

Before joining JHAH, he was a Core Lab Supervisor at the Saudi Aramco Medical Services Organization.

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**Case Study #05:
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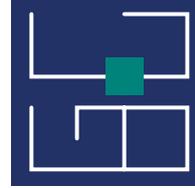


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