
Dr. Noor Al Busaidi

Presentation



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Safe Care for Life

Using the Lifestyle Component to Address Noncommunicable Disease — and Make Care Safer

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BEFORE WE BEGIN

Disclosure

No conflict of interest to declare.

ROADMAP

Agenda

- 1 The scale of the problem
- 2 Why patient safety, why now
- 3 Prevention as a safety strategy
- 4 The six pillars of lifestyle medicine
- 5 Diabetes as our model NCD
- 6 When lifestyle prescriptions need their own safety check
- 7 Building safety into the pathway, and a call to action

THE SCALE OF THE PROBLEM

Four diseases drive 4 in 5 premature NCD deaths

43 million people die from an NCD every year — 75% of all non-pandemic deaths worldwide.

19M

Cardiovascular
disease

10M

Cancers

4M

Chronic respiratory
disease

2M+

Diabetes
(incl. kidney disease)

WHY PATIENT SAFETY, WHY NOW

World Patient Safety Day 2026

17 September 2026 “Safe care for noncommunicable diseases” • Slogan: “Safe care for life!”

1 in 10

patients is harmed during
health care worldwide

~50%

of that harm is
preventable

1 in 3

cancer patients
experience an adverse
event during care

THE CORE IDEA

Harm can happen at every stage — so must safety



WHO's second key message for WPSD 2026: safety must be addressed across the whole patient journey — in clinics, homes, and communities, not only at the point of treatment.

Lifestyle medicine sits at the very first stage — prevention — making it one of the highest-leverage patient safety interventions we have.

SIX PILLARS OF LIFESTYLE MEDICINE

Six levers, one safety strategy

WHO's founding framework names four shared behavioral risk factors — diet, activity, tobacco, and alcohol — as the drivers of the major NCDs. **The American College of Lifestyle Medicine's six-pillar model, now widely adopted, broadens this: restorative sleep and social connection carry equally strong evidence and are covered here alongside the original four.**

- Healthy Diet
- Physical Activity
- Avoiding Harmful Substances
- Restorative Sleep
- Stress Management
- Social Connection



These six pillars, drawn from ACLM's framework, structure the rest of this talk.

Source: American College of Lifestyle Medicine, Six Pillars framework

PILLAR 1 OF 6

Healthy diet

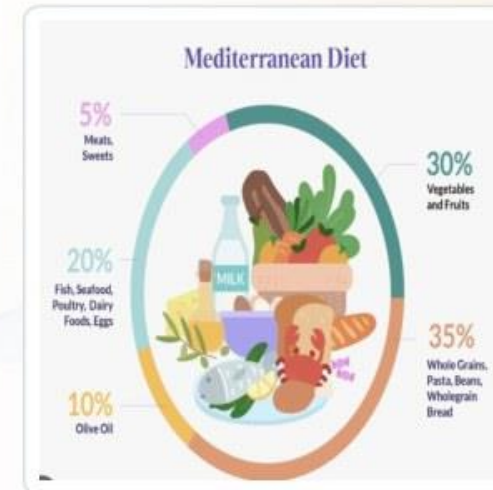
58%

lower diabetes incidence with diet + exercise
vs. placebo (DPP trial)

Safety note: rapid or extreme diet change can itself cause harm — refeeding risk, hypoglycemia, or nutrient gaps. Individualize and monitor.

- Mediterranean and DASH eating patterns show the strongest evidence for cardiovascular and metabolic protection.
- A 5% weight loss already improves glycemic control, lipids, and blood pressure in overweight/obesity.
- Focus on nutrient-dense, high-fiber, minimally processed carbohydrate sources; limit refined sugar and salt.

Eat more of this



Less of this



Sources: Diabetes Prevention Program (DPP); PREDIMED; DASH Trial; ADA Standards of Care in Diabetes—2026

PILLAR 2 OF 6

Physical Activity

150 min

of moderate activity per week is the evidence-based target for most adults

Safety note: screen for cardiovascular and hypoglycemia risk before prescribing vigorous activity — see “The safety twist” ahead.

- Every 500 extra steps/day is linked to a 2–9% lower risk of cardiovascular events and all-cause mortality.
- Aerobic activity, resistance training, and reduced sedentary time each independently improve glucose, blood pressure, and lipids.
- “All exercise is physical activity, but not all physical activity is exercise” — everyday movement counts.

Sources: ADA Standards of Care in Diabetes—2026; WHO physical activity guidelines



Movement built into everyday routines

PILLAR 3 OF 6

Avoiding Harmful Substances

Tobacco and harmful alcohol use are two of WHO's four founding shared NCD risk factors — and among the most dangerous when combined with chronic disease medications.

TOBACCO

30–40% higher diabetes risk among smokers

Ask, advise, and refer at every encounter — combine counseling with pharmacologic support for best results.

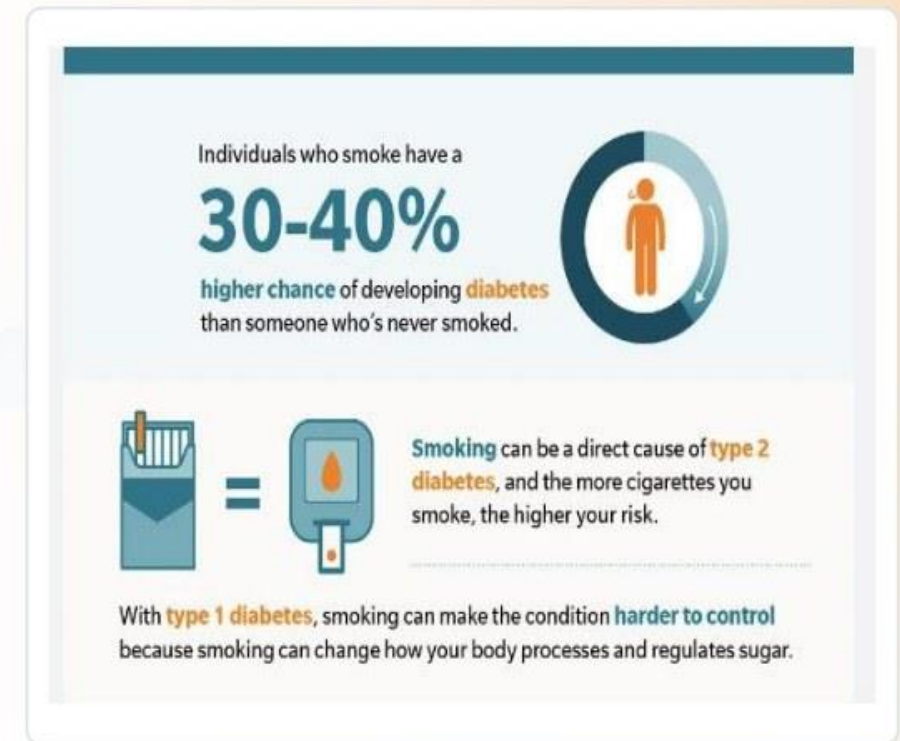
ALCOHOL

1 of 4 WHO core NCD risk factors

Raises the risk of delayed hypoglycemia with insulin or sulfonylureas. Counsel on safe limits and screen routinely — don't assume it will be volunteered.

Safety note: abrupt cessation and delayed hypoglycemia both need explicit counseling and, where needed, medical support.

Sources: ADA Standards of Care in Diabetes—2026; WHO Noncommunicable Diseases Fact Sheet



Smoking and diabetes risk

PILLARS 4-6 OF 6

Sleep, Social Connection & Stress Management

Just as core to lifestyle medicine as diet and activity — and increasingly built into national diabetes and NCD guidelines.

Restorative Sleep

- Both short (<6h) and long (>8h) sleep duration worsen glycemic control (A1C).
- Screen for sleep disorders — obstructive sleep apnea, insomnia — in all NCD patients.

Social Connection

- Strong social support improves self-management and reduces diabetes distress.
- Isolation and stigma are independent risk factors for poor NCD outcomes.

Stress Management

- Chronic stress raises cortisol, blood pressure, and blood glucose — worsening NCD control.
- Routine screening for depression, anxiety, and diabetes distress is now guideline-level care.

Together with diet, activity, and substance avoidance, these six pillars form the full lifestyle-medicine model — each one a lever for both prevention and patient safety.

Sources: ADA Standards of Care in Diabetes—2026; American College of Lifestyle Medicine, Six Pillars framework

OUR MODEL NCD

Diabetes: 50 years of evidence for lifestyle prescription

Lifestyle intervention is the cornerstone of both prevention and management — often outperforming medication alone.



DESIGN

Lifestyle vs. metformin vs. placebo

KEY FINDING

58% lower diabetes incidence with lifestyle change (vs. 31% with metformin)



DESIGN

Intensive lifestyle change in T2D

KEY FINDING

Significant weight loss and improved glycemic control



DESIGN

Long-term follow-up, newly diagnosed T2D

KEY FINDING

Diet alone reduced HbA1c by 1–2%; fewer complications



DESIGN

Very low-calorie diet + support vs. usual care

KEY FINDING

46% achieved remission of type 2 diabetes at 1 year

Sources: Diabetes Prevention Program; Look AHEAD Trial; UKPDS; DiRECT Trial

THE SAFETY TWIST

When the lifestyle prescription itself needs a safety check

Lifestyle interventions are powerful medicine — and like any medicine, they carry risks that must be screened for and monitored.

Exercise + insulin or sulfonylureas

Can trigger hypoglycemia during or hours after activity — check glucose before/after and adjust carbohydrate or dosing.

Exercise during cancer treatment

Oncology exercise guidelines call for individualized risk screening — activity is generally safe and beneficial, but intensity must be tailored.

Exercise in cardiac patients

Preparticipation risk screening is recommended before starting moderate-to-vigorous activity in those with cardiovascular disease.

Alcohol + glucose-lowering therapy

Raises the risk of delayed, sometimes severe, hypoglycemia — patients and families need explicit counseling.

THE SAFE PATHWAY

Building safety into every lifestyle prescription

1

Screen

Assess baseline risk, comorbidities, and readiness before prescribing change.

2

Individualize

Tailor type, intensity, and pace to the person's condition, culture, and preferences.

3

Monitor

Track glucose, symptoms, and response; adjust medications as lifestyle changes take effect.

4

Refer & escalate

Involve behavioral health, dietetics, or specialists when risk or distress is identified.

This mirrors WHO's third key message for WPSD 2026: reducing harm requires strong, integrated health systems with well-supported healthcare workers — not willpower alone.

MAKING IT STICK

Barriers are real — so are the solutions

BARRIERS	SOLUTIONS
Established habits and routines that feel daunting to break	Personalized, SMART goals set through shared decision-making
Unsupportive social networks and food-centered gatherings	Self-monitoring tools — food diaries, activity and glucose tracking
Stress, emotional eating, and motivation setbacks	Regular follow-up, positive reinforcement, and peer/family support
Limited access, cost, knowledge, or clinician time	Multidisciplinary teams: dietitians, behavioral health, educators

CALL TO ACTION

What WHO is asking of each of us in 2026

Raise awareness

Highlight diagnostic delays, medication errors, and lifestyle-intervention risks in NCD care.

Engage patients

Treat people living with NCDs as active partners in identifying risk and co-designing solutions.

Strengthen systems

Embed safety principles into NCD policy, prevention programs, and clinical pathways.

Support workers

Equip clinicians to screen, individualize, monitor, and refer — safely and consistently.

Source: WHO World Patient Safety Day 2026 campaign objectives

Safe care for life.

Lifestyle medicine, practiced safely, is one of the most powerful patient-safety tools we have against NCDs.

Thank you.

Dr. Noor Al Busaidi

President, Oman Diabetes Association
Director, National Diabetes & Endocrine Center
Chair, IDF Women and Diabetes Committee

Dr. Badriya Al Alawi

Presentation



Dr. Badriya Al- Alawi
Head of Laboratories & Blood Bank
Ibri Hospital

Improving Patient Safety in Diabetic Foot Ulcer Care through Autologous Platelet-Rich Plasma

**A Quality Improvement Initiative at Ibri Hospital,
Oman**

Dr. Badriya Al- Alawi (HoD-Lab)



Disclaimer & Disclosures

- **Collaborative Project:**

- This presentation represents a joint initiative and team work between **Laboratory and Blood Bank** and **Surgery Department** of Ibri Regional Hospital.

- **Speaker Representation:**

- I am presenting these findings and data on behalf of the **complete project team** involved in this collaboration.

- **Financial Disclosures:**

- The author and presenter received no financial assistance or commercial sponsorship from any individual, institution, or third party organization for this project.

- **Patient Privacy:**

- Strict patient record confidentiality has been maintained throughout this project. All data has been fully anonymized in accordance with medical ethics and institutional guidelines.

Introduction & Background

- **Diabetes mellitus (DM)** is a major non-communicable disease and a significant patient safety challenge.
- In Oman, approximately 16% of adults are affected by diabetes, among the highest rates in the Gulf region.
- Globally, **19–34% of people** with diabetes develop **diabetic foot ulcers (DFUs)**.
- DFUs are a major complication of diabetes and may result in prolonged healing, hospitalization, lower-limb amputation, disability, and increased healthcare burden.
- Impaired healing is associated with neuropathy, peripheral arterial disease, infection and poor glycaemic control.

Introduction & Background (Cont.)

- This quality improvement initiative evaluated the implementation of **autologous Platelet-Rich Plasma (PRP)** as an adjunct to standard diabetic foot care to enhance wound healing and improve patient safety.
- PRP is an autologous blood product containing concentrated platelets and multiple growth factors like PDGF, VEGF, TGF- β , EGF, IGF.
- PRP support **angiogenesis, fibroblast proliferation, collagen synthesis, tissue regeneration and epithelialization.**

Aims and Objectives

Aims

- To evaluate the clinical outcomes of autologous PRP in the treatment of diabetic foot ulcers.

Objectives

- Describe the demographic and clinical characteristics of patients treated with PRP.
- Evaluate wound healing following PRP therapy.
- Determine the time required for ulcer healing.
- Assess changes in ulcer size during treatment.
- Document complications, including infection, recurrence, and lower-limb amputation.

Study Methodology

❖ Study Design:

- Retrospective observational case series based on medical-record review.

❖ Study Setting:

- Ibri Regional Hospital, Ministry of Health, Oman

❖ Study Period:

- January 2023 to December 2025

❖ Total Patients: 23

- **Note:** Patients received 2–6 PRP treatment sessions depending on response and clinical assessment

Patient Selection

Inclusion Criteria :

- Patients aged ≥ 18 years.
- Confirmed Type 2 diabetes mellitus.
- Diagnosed with diabetic foot ulcer:
 - **Grade 1A (wounds without tendon, capsule, or bone involvement)**
- Adequate Perfusion: Wounds with a viable, clean wound bed and acceptable local blood flow (e.g., an ankle-brachial index or ABI ≥ 0.5 to 0.6)
- Acceptable Platelet/Coagulation Profile.

Patient Selection

- **Exclusion Criteria:**

- ABI of less than 0.6
- Evidence of gangrene in ulcer or on any part of the foot.
- Acute Charcot foot.
- Patient has known or suspected osteomyelitis.
- Infected Diabetic foot ulcers.

Patient Characteristics

Total Patients	23	100%
Male	17	74%
Female	6	26%

Age Profile

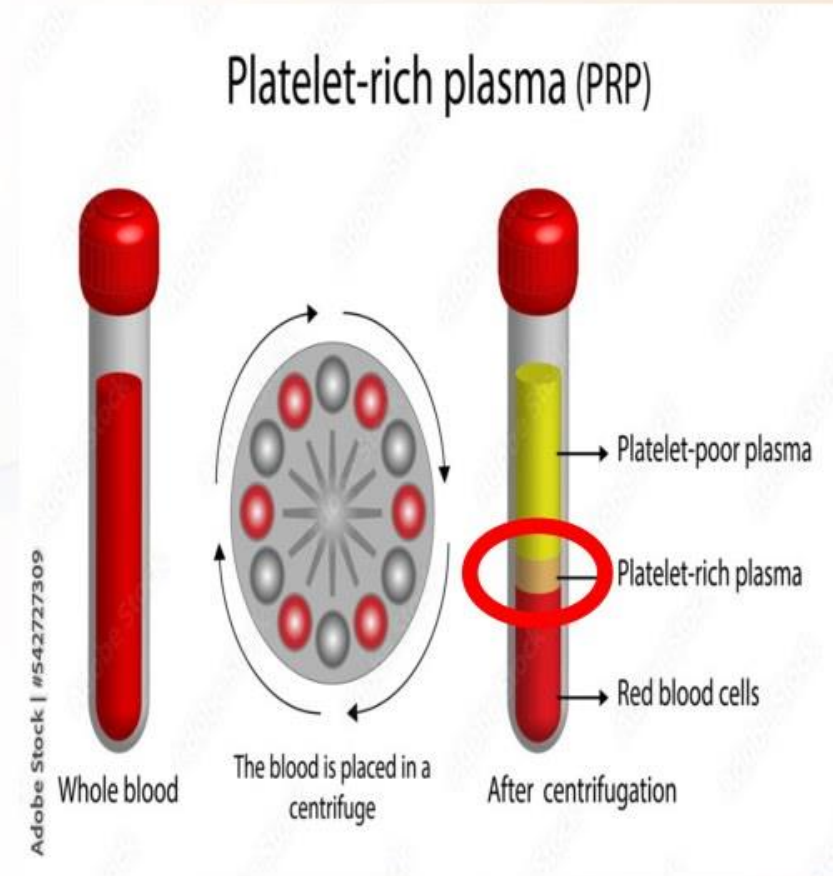
	Male	Female	Total
Age Range	35-74	32-85	32-85
Mean age	48.5	50.3	49
SD	11.3	19.7	13.5
Median	47	45	47

Patients Treated by Years

Year	No of Patients	Male	Female
2023	10	7	3
2024	8	6	2
2025	5	4	1
Total	23	17	6

Platelet-Rich Plasma (PRP) Preparation

- 20 ml of venous blood was drawn from the patients into a tube containing an anticoagulant, to avoid platelet activation and degranulation.
- The blood was centrifuged, (1000 rpm) for 10 min which allows the blood separation into distinct layers:





Methodology

- Surgical debridement was performed to remove necrotic tissue and freshen the wound bed.
- PRP layer was identified and aspirated using a sterile syringe.
- PRP was injected around the ulcer edge and covered with paraffin gauze and sterile gauze.
- Patients received between 2 and 6 PRP treatment sessions depending on ulcer response and clinical assessment.
- Follow-up was performed weekly with measurement of wound dimensions (length, width, and depth) using metric tapes at initial visit and follow up visits.

Results

2023:

20% of patients achieved complete healing.

60% partial healing.

20% no improvement.

2024:

75% of patients achieved complete healing.

12.5% partial healing.

12.5% no improvement.

2025:

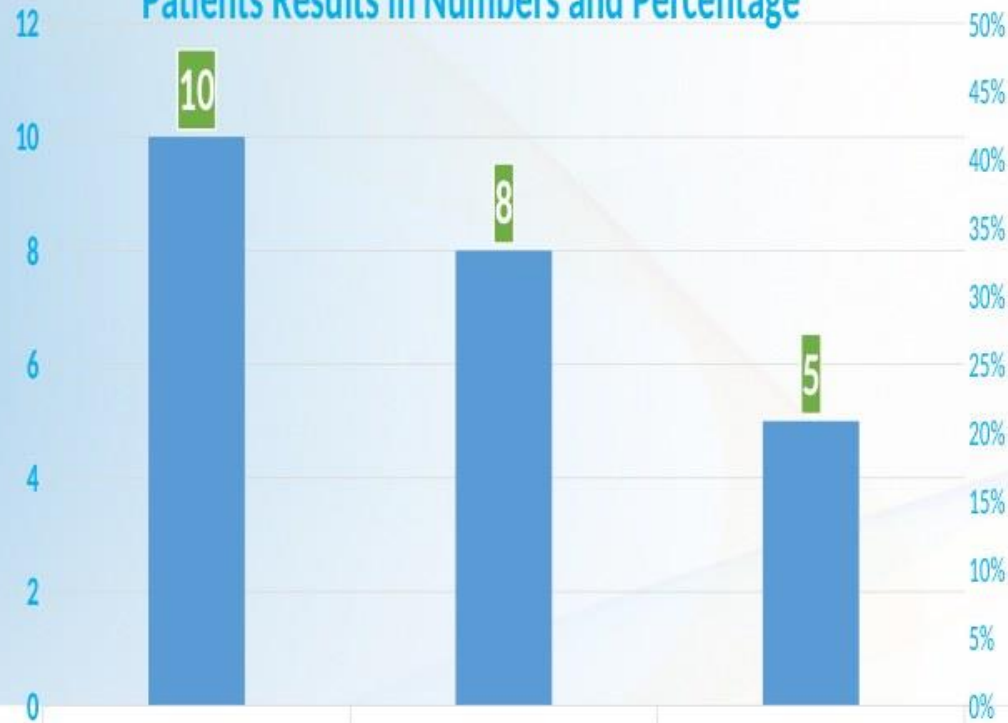
40% of patients achieved complete healing.

20% partial healing.

40% no improvement.

Overall Clinical Outcomes

Patients Results in Numbers and Percentage



	Complete Healing	Partial Improvement	No Improvement	Complete Healing	Partial Improvement	No Improvement
Series1	10	8	5			
Series2	43%	35%	22%			

A Success Story Case of DFU

- **Demographist:**

- 68-years old Omani (Retired Government Employee)

- **Chief Compliant:**

- Diabetic Foot Ulcer

- **Key Laboratory Findings:**

- HbA1C: 8.7% → Poorly controlled diabetes
- CRP: 16 mg/L → Mildly elevated systemic inflammation marker
- WBC/Diff: 10,500/ μ L with 78% Neutrophils → Mild leukocytosis
- Hb: 14.5 g/dL → Normal

- **Clinical Action Plan:** Wound care, PRP Treatment, Infection Management, Glycemic optimization

Before PRP treatment



During PRP treatment follow up



2 Week later:
After 2 PRP Sessions



4 Weeks later:
After 3 PRP Sessions

Final Outcome



Findings and Clinical Evidence

Findings suggest that autologous PRP may be a useful adjunctive therapy in selected diabetic foot ulcers.

- PRP enhances wound healing via angiogenesis, collagen synthesis, epithelialization.
- Variation in response was observed across patients and years.
- Favourable healing was associated with better glycaemic control, adequate vascular perfusion, infection management and regular wound care.
- PRP should complement and not replace comprehensive diabetic foot management.
- Results are described as comparable with evidence from systematic reviews and randomized clinical trials.

Limitations

- Retrospective observational design.
- Small sample size.
- Absence of a control group receiving standard wound care alone.
- Variation in HbA1c levels, ulcer characteristics and number of PRP sessions.
- These factors may have influenced healing outcomes.



Conclusion

- Autologous PRP appears to be a **promising adjunctive therapy** for selected diabetic foot ulcers.
- Complete or partial improvement was observed in 78% of treated patients.
- Treatment response is multifactorial and depends on glycaemic control, vascular supply, infection control, ulcer characteristics and wound care.
- Further larger prospective studies with standardized protocols are needed.

Recommendations

- Consider PRP as an adjunct for selected chronic ulcers not responding adequately to conventional care.
- Optimize glycaemic control and assess vascular status before treatment.
- Use standardized PRP preparation and administration protocols.
- Record ulcer area, depth, healing rate and photographic documentation at regular follow-up.
- Use a multidisciplinary approach involving diabetes, vascular, wound-care and laboratory professionals.
- Conduct larger prospective randomized studies to evaluate healing, recurrence, limb salvage and cost-effectiveness.

References

- Ahmed M, Reffat SA, Hassan A, Eskander F. Platelet-rich plasma for the treatment of clean diabetic foot ulcers. *Annals of Vascular Surgery*. 2017;38:206–211.
- Malekpour Alamdari N, et al. Evaluation of the efficacy of platelet-rich plasma on healing of clean diabetic foot ulcers: A randomized clinical trial. *Diabetes & Metabolic Syndrome: Clinical Research & Reviews*. 2021.
- Study source: Clinical Outcomes of Platelet-Rich Plasma in the Treatment of Diabetic Foot Ulcers, Ibri Regional Hospital (2023–2025).

Thank You!

Thank you for your attention and
for your interest in our work on
Platelet-Rich Plasma (PRP)
in Diabetic Foot Ulcers.

Together, we can advance healing,
improve outcomes, and enhance
quality of life for our patients.



PRP

Promoting Healing.
Restoring Hope.



Dr. Khoula Al Maqbali

Presentation



Dr Khoula Al Maqbali
Consultant Rheumatologist
Suhar Hospital

Qualitative insight into patient's perspectives at Oman First Dedicated Biologic Clinic: A single – Centre Experience

Dr Khoula Al Maqbali
Consultant Rheumatologist
Suhar Hospital



Introduction

- Biologic disease-modifying anti-rheumatic drugs (DMARDs) have significantly advanced the treatment of inflammatory arthritis.
- However, in clinical practice, ensuring consistent monitoring to maintain their effectiveness and safety continues to be a challenge.
- The establishment of dedicated biologic clinics has revolutionized the treatment landscape for patients with chronic inflammatory conditions such as rheumatoid arthritis, ankylosing spondylitis, and psoriatic arthritis.

Introduction

- These clinics aim to provide comprehensive care by ensuring timely monitoring, enhancing patient education, and optimizing therapeutic interventions.
- Oman's first dedicated biologic clinic in Suhar Hospital was inaugurated with these goals in mind.
- This study explores patient perspectives regarding the care they receive at this clinic, identifying both achievements and areas needing improvement.

Aim:

1. Assess patient satisfaction with various aspects of the biologic clinic, including waiting times, education, and involvement in decision-making.
2. Identify unmet needs and areas for improvement from the patient's viewpoint.

Methodes

- A qualitative approach was employed to gather data from patients attending the biologic clinic between January and July 2024.
- Patients were interviewed using a semi-structured format, incorporating a comprehensive checklist for biologic initiating that has been utilized consistently in the clinic (Figure 1).



مستشفى صحار

Suhar Hospital



Biologic Clinic / Rheumatology Unit

Commencing Biologic Medication Education Checklist

Date: Patient identification: Education given by:

1. Biologic disease modifying anti-rheumatic drug (bDMARD) medication education provided:

- A. Medication dosage :
- B. Storage of medication:
- C. Injection regimen :

- Comments/issues/action:

2. Patient informed that first bDMARD injection should be given in clinic (Rheumatology clinic) or general practitioner (GP) at local health centre.

☐ Yes ☐ No

Comments/Issues/Actions:

3. Patient is having the medication infused?

☐ Yes ☐ No

If yes, has the patient been informed about the Medical Day care Unit?

☐ Yes ☐ No

What is the frequency of the infusion? Patient informed about the frequency of medication infusion.

☐ Yes ☐ No

4. Patient has been informed about possible side effects including:

- o Injection site reaction :
- o Infection:
- o Local or systemic skin rash :

o Others relevant to the bDMARD used:

- Comments/Issues/Actions:

5. I have discussed with the patient the following information:

- ☐ STOP bDMARDs if they suspect they may have an infection (chest infection, urinary tract infection or wound infection).
- ☐ If they suspect an infection to seek medical advice at local health centre
- ☐ Informed patient if they start antibiotics they need to discontinue bDMARD medication until the infection has cleared.

Comments/Issues/Actions:

6. If patient is having an elective surgery procedure inform they must STOP bDMARD when and how long prior to surgery:

- ☐ 1 week
- ☐ 2 weeks
- ☐ 3 weeks
- ☐ 4 weeks

7. Inform the patient:

- ☐ NOT to have live vaccine (example: MMR, Yellow fever)
- ☐ Non-live vaccine could be given while on biologics (example: influenza and pneumococcal)
- ☐ Female patients are to have regular breast checks, ultrasounds and/or mammograms and pap smears as per the national recommendation.
- ☐ Female patient to inform us if planning for pregnancy.

Comments/Issues/Actions:

- A fact sheet: Information for when you're taking biologic medicine" has been given to the patient.
- Rheumatology contact details have been given to the patient.
- An opportunity has been given to the patient to ask questions.

Comments/Issues/Actions:

Patient signature:

Dr. Signature:

Methodes

- The interviews covered topics such as satisfaction with waiting times, educational support, decision-making involvement, and overall clinic experience.
- Data were transcribed and analysed using thematic analysis to identify common themes and insights. Patient demographics in (Figure 2)

PATIENT CHARACTERISTICS	
SEX (N)	Female (18), Male (12)
AGE (MEDIAN YEAR)	54
DISEASE DURATION (MEDIAN)	6
PRIMARY RHEUMATOLOGICAL DISEASE (N)	RA (19) AS (6) PsA (5)
ETHNICITY (N)	Omani (Arab) 30
LANGUAGE BACKGROUND (N)	Arabic 30, English (second language 3)
EDUCATION LEVEL, HIGHEST LEVEL (N)	Primary /Secondary (15) High school/Diploma (12) Higher Degree (3)
EMPLOYMENT STATUS (N)	Full time (9) Unemployed (14) Retired (7)

Figure 2: Patient demographics

Results

- Out of 30 patients (18 females, 12 males) interviewed, 19 had rheumatoid arthritis, 6 had ankylosing spondylitis, and 5 had psoriatic arthritis.
- The majority of patients reported high satisfaction with the educational support provided before and after initiating biologic therapy, with 89% expressing satisfaction before starting treatment and 86% maintaining satisfaction afterward.
- Approximately 85% of patients felt actively involved in decision-making regarding their treatment plan.

Results

- However, 53% of patients highlighted the need for more frequent educational updates and follow-ups.
- Waiting times for appointments were generally well received, with 81% of patients satisfied with the duration and frequency of consultations.
- Among the unmet needs, patients suggested the introduction of telemedicine consultations particularly in the first month after starting biological therapy and enhanced access to specialized nursing support

Discussion

- This study provides a possible overall insight into the key concerns and priorities of rheumatology patients at one government hospital in Oman of the introduction of a specialised clinic, as the biologic clinic in our study.
- It also has an overall of what health-care providers, on the other hand, would like to provide to the patient (figure 3).

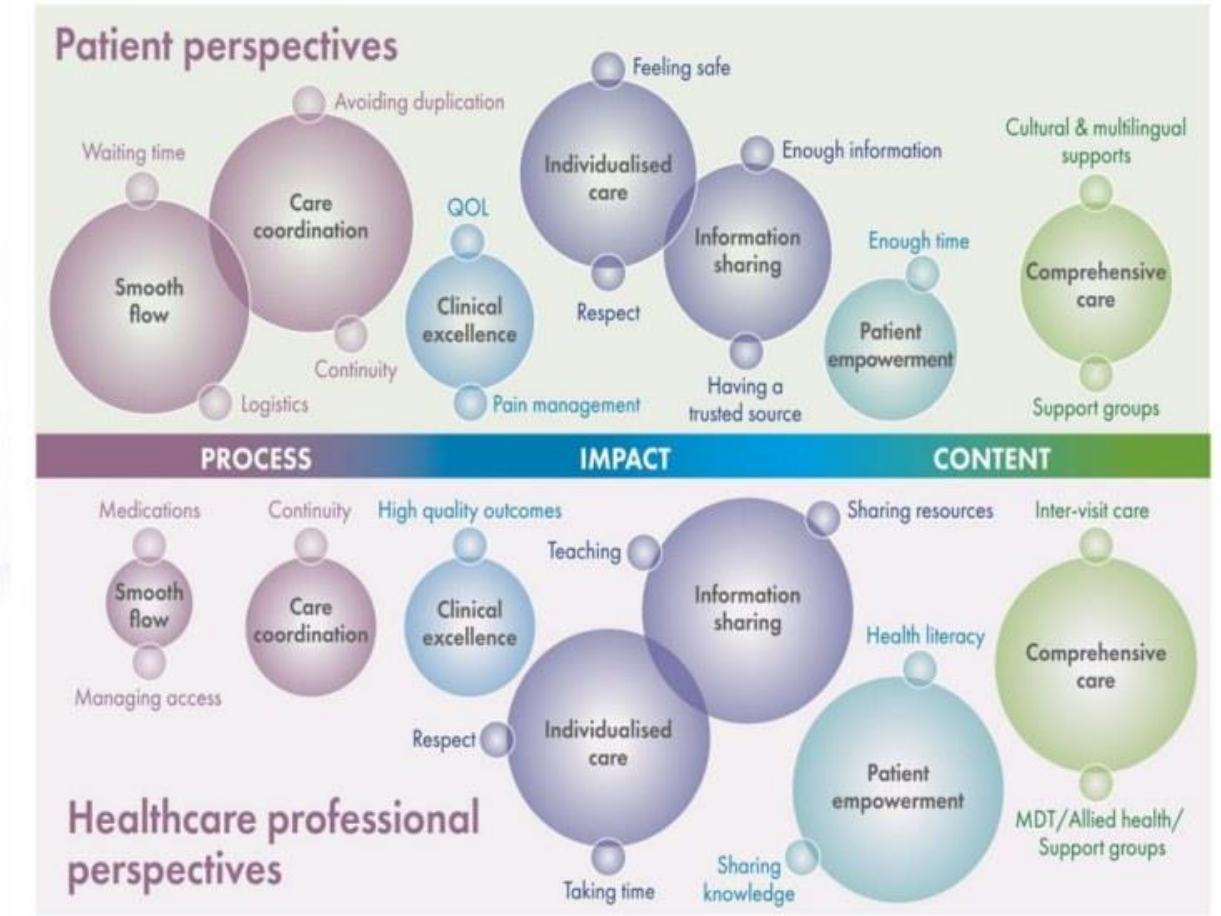


Figure 3: Conceptual model of findings

Discussion

- We have been reminded of the importance placed by patients on receiving adequate information about their condition and treatment and of the essential role that this plays in fostering patient engagement and empowerment.

Patient perspectives



PROCESS

IMPACT

CONTENT



Healthcare professional perspectives

Figure 3: Conceptual model of findings

Discussion

- This study has demonstrated the significant overlap between process based and non-technical domains of care within a rheumatology context, such as the burden of waiting times and inflexible processes, and the downstream impact on domains such as feeling respected, achieving high-quality clinical standards and efficient resource allocation.
- Collecting and analysing experiential data for this cohort is essential to providing care that better addresses patient needs and priorities.

Conclusion

- The findings indicate that the dedicated biologic clinic in Suhar Hospital has successfully enhanced patient satisfaction, particularly in areas of education and involvement in decision-making.
- Nevertheless, there is a significant demand for continuous educational support and the integration of to further improve patient care.
- Addressing these unmet needs could lead to even better patient outcomes and satisfaction.

References

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- Early arthritis clinic is cost-effective, improves outcomes and reduces biologic use. Clin Rheumatol. 2019;38:1555–1560. DOI: 10.1007/s10067-019-04515-3



Thank you

Mr. Abbas Al Ajmi

Presentation



Presented by : SNA. Abbas ALAjmi
Rustaq Hospital

Establishment of Palliative Care Service

Focused on non-cancer

Operational metrics, patient safety enhancement, and clinical outcomes for non-cancer noncommunicable diseases (NCDs).

Presented by : SNA. Abbas ALAjmi



Implementation Timeline: August 2025 – Present



Background & Clinical Need



Traditional Service Underutilization: Palliative care has historically been restricted to oncology, leaving non-cancer NCD patients with unaddressed symptom burdens.



High Patient Safety Risks: Patients with advanced organ failure and NCDs face high risks of medication errors, fragmented transitions, and avoidable crisis hospitalizations.



Patient Safety Alignment: Developed in line with *World Patient Safety Day 2026* to systematically improve symptom control, safety, and care continuity at the primary care level.



Objective: Bridge the safety gap by introducing proactive palliative interventions in community-based primary care.

Methodology & Clinical Pathways

A structured Quality Improvement (QI) service model executed from August 2025 to present across five major non-cancer NCD pathways:



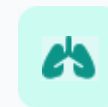
Stroke & Neurology

Structured care pathways to manage post-stroke disability, dysphagia safety, and long-term symptom stabilization.



Heart Failure & ESRD

Fluid management, symptom relief, and medication safety adjustments for advanced cardiovascular & renal failure.



Chronic Respiratory

Breathlessness management, home oxygen/medical device coordination, and exacerbation mitigation.

Multidisciplinary Implementation



Medication Safety Adjustments: Proactive de-prescribing and dosage titration for uncontrolled symptom burdens.



Multidisciplinary Coordination: Seamless integration across nursing, clinical nutrition, physiotherapy, and social work.



Patient & Caregiver Education: Targeted training sessions to empower home management and crisis prevention.



Home Medical Devices: Streamlined procurement and setup of enteral feeding and supportive equipment.

Service Expansion & Patient Volume

1,343

Total Patients Enrolled

Cumulative Cohort (Aug 2025 – Present)

2025 PILOT PHASE

455 Patients



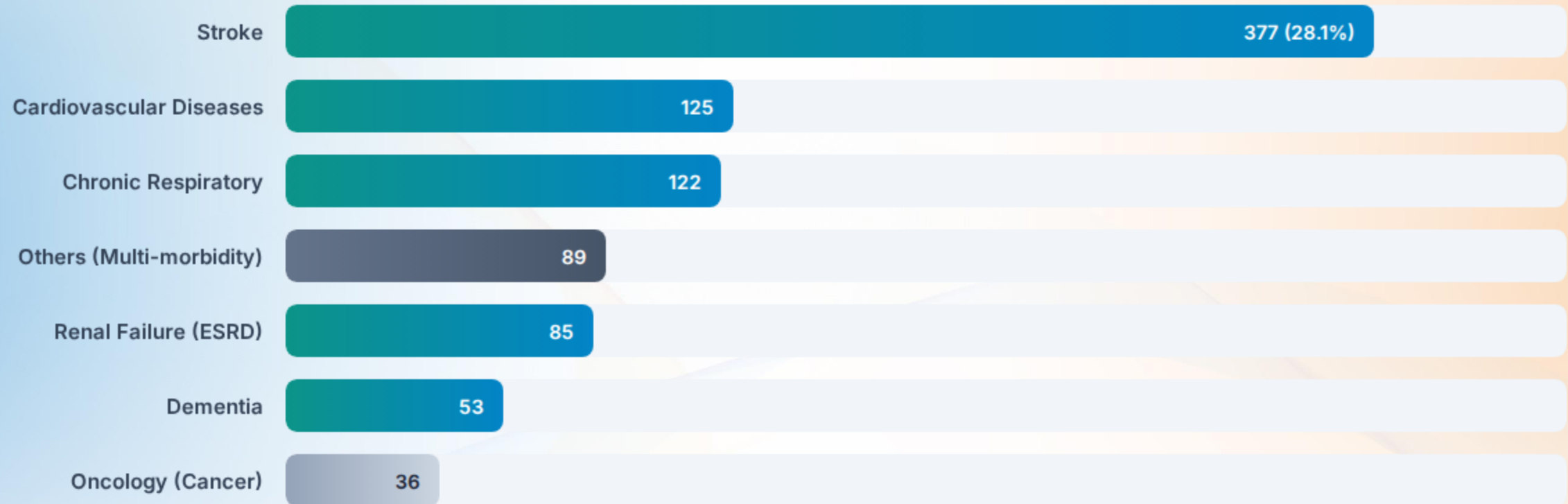
2026 SCALED EXPANSION

887 Patients

90.6% Non-Cancer NCD Focus



Patient Distribution by Diagnosis



Non-cancer diagnoses represent 90.6% of total palliative enrollments, demonstrating successful service reorientation.

Operational Interventions Delivered

592

Multidisciplinary Consultations

534

Patient/Caregiver Education Sessions

318

Medication Adjustments for Symptoms

236

Nutritional & Enteral Feeding
Targeted clinical nutrition plans

106

Home Medical Devices
Equipment setup and home support

Impact on Re-Hospitalization Rates

PUBLISHED LITERATURE BENCHMARK

10% – 30%

Re-hospitalization rate for uncontrolled symptoms in non-cancer NCD cohorts.

ACHIEVED PROGRAM OUTCOME

8.2%

Re-hospitalization rate achieved via integrated primary palliative home care.

- ✓ Enabling safe, continuous home transitions significantly reduces unnecessary emergency admissions and acute healthcare burdens.

Conclusion & Value Proposition

Patient Safety & Quality

Establishing an integrated palliative service model in primary care effectively addresses critical safety gaps, mitigates medication-related harm, and enhances symptom management.

System & Quality of Life Impact

Proactive community-based management reduces avoidable readmissions, optimizes resource utilization, and significantly improves the overall quality of life for patients and caregivers.



Thank you..!

Dr. Laila Al Mubehsi

Presentation



Dr. Laila Al Mubehsi
Senior Family Medicine Specialist
Barka Polyclinic



CROSS-SECTIONAL STUDY

Prevalence of Depression Among Omani Patients with Type 2 Diabetes Mellitus

South Al Batinah Governorate, Sultanate of Oman

BACKGROUND

Introduction



Diabetes mellitus is a major global health challenge, with the number of affected adults projected to reach 783 million by 2045.



In Oman, diabetes affects approximately 15% of adults, exceeding the estimated global prevalence of 9.3%.



Depression is a clinically important comorbidity that can add substantially to the burden of diabetes and complicate disease management.



The coexistence of diabetes and depression is associated with poorer self-management and adverse clinical outcomes.



Depression is characterized by persistent low mood and/or loss of interest for at least two weeks, with associated functional impairment.

WHY IT MATTERS

Clinical Significance



Association with Depression

Depression is a common comorbidity in people living with diabetes.



Impact on Diabetes Care

Comorbid depression is associated with poorer self-care, suboptimal glycemic control, lower treatment adherence, and a higher risk of diabetes-related complications.



Research Gap

Despite its clinical relevance, evidence from Oman remains limited, particularly in primary healthcare settings.

AIMS

Study Objectives

01

To estimate the prevalence of depression among Omani adults with type 2 diabetes mellitus in South Al Batinah Governorate.

02

To examine sociodemographic and clinical factors associated with depression in this population.

STUDY DESIGN

Methods



Design & Period

Cross-sectional study
June–December 2024



Study Population

403 Omani adults with T2DM
from 5,256 registered patients



Study Sites

Barka · Al Musannah · Ar Rustaq
polyclinics



Sampling

Proportionate stratified random sampling
161 · 140 · 102 participants



Depression Assessment

Validated Arabic PHQ-9
Depression defined as PHQ-9 ≥ 5



Statistical Analysis

SPSS v25 · 95% CI · $p < 0.05$
Multivariable logistic regression

Probability-based sampling + validated Arabic PHQ-9 + multivariable analysis

SAMPLE DEFINITION

Eligibility Criteria

INCLUSION CRITERIA



Omani adults aged ≥ 18 years.



Diagnosed with type 2 diabetes mellitus and registered at one of the three participating polyclinics.



Total registered population: 5,256 patients.

EXCLUSION CRITERIA



Patients with type 1 diabetes mellitus.



Patients with a prior diagnosis of depression or other psychiatric disorders.



Patients with acute medical illness.



Pregnant women or women within six months postpartum.

SAMPLE CHARACTERISTICS

Participant Profile

403

Participants

59.8%

Female

65.3%

Aged 40–64 years

48.4%

Diabetes duration >9 years

PRIMARY OUTCOME

15.9%

Prevalence of depression

95% CI: 12.3%–19.5%

≈ 1 in 6 participants

among participants with type 2 diabetes mellitus

SEVERITY BREAKDOWN

Distribution of Depression Severity

15.9%

Overall prevalence of depression

PHQ-9 score ≥ 5

10.2%

Participants with mild depression

Mild was the most common category



Clinical message: mild depressive symptoms were common, creating an opportunity for earlier recognition in primary care.

SIGNIFICANT ASSOCIATIONS

Factors Associated with Depression



Marital Status

$p = 0.010$

Depression was more frequent among divorced and unmarried participants than among married participants, suggesting a potential role for social support.



Educational Level

$P = 0.012$

Higher educational attainment was significantly associated with greater depression severity.



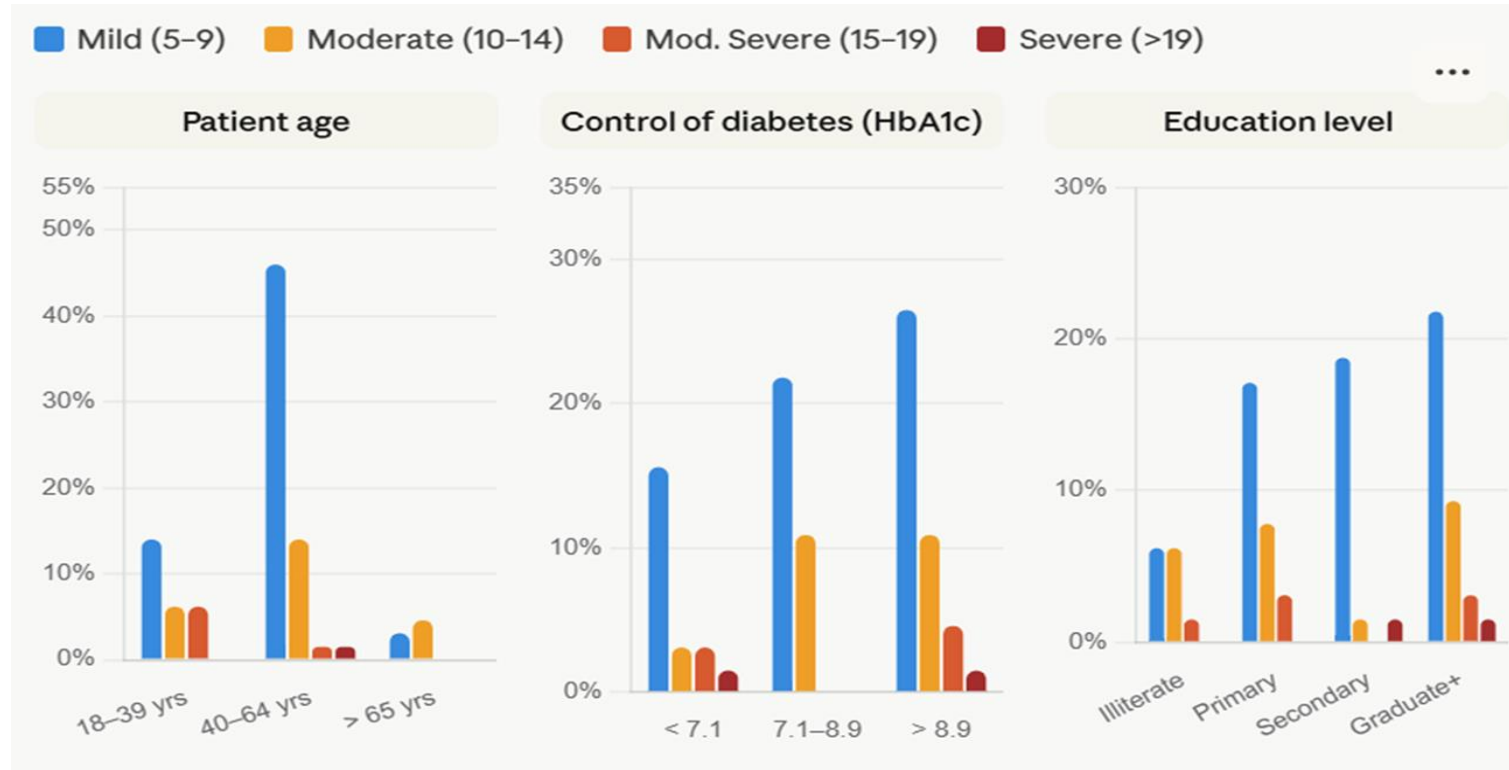
Glycemic Control

$p = 0.044$

Poor glycemic control was associated with depressive symptoms.

AGE-RELATED PATTERN

Association Between Age and Depression



STATISTICAL FINDING

P = 0.001

Depression was significantly more frequent in younger age groups than in older participants.

NON-SIGNIFICANT FINDINGS

Factors Without a Significant Association

No statistically significant association with depression was observed for:

Duration of diabetes

Type of treatment

Smoking

Physical activity

Also non-significant: diabetes-related complications/comorbidities · alcohol use · family history of depression

METHODOLOGICAL APPRAISAL

Strengths & Limitations

STRENGTHS

Representative sampling

Proportionate stratified random sampling across three polyclinics.

Validated assessment

Validated Arabic PHQ-9 administered by trained healthcare professionals.

Analytical approach

95% confidence intervals and multivariable logistic regression.

LIMITATIONS

Cross-sectional design

Associations can be identified, but causality and temporality cannot be established.

Geographic scope

Conducted in one governorate; generalizability to all of Oman may be limited.

Screening vs diagnosis

PHQ-9 identifies depressive symptoms but does not replace a diagnostic psychiatric interview.

Interpretation: clinically relevant primary-care findings; causal conclusions require longitudinal research.

SUMMARY

Conclusions

TAKE-HOME

Depression affected approximately 1 in 6 participants.



Depression was identified in 15.9% of participants with type 2 diabetes, indicating a clinically important and potentially under-recognized burden in this primary care population.



The findings support greater integration of mental health assessment within routine diabetes care to promote comprehensive, patient-centered management.



Earlier recognition may enable timely intervention and may contribute to better treatment engagement and quality of life.

WHAT NEXT

Clinical Implications & Recommendations

1

Integrate Mental Health Assessment

Incorporate mental health assessment into routine diabetes care, with particular attention to younger patients and individuals with limited social support.

2

Use Validated Screening Tools

Consider validated tools such as the PHQ-9 to support early identification of depressive symptoms and timely clinical assessment.

3

Strengthen Integrated Care

Strengthen integrated primary care pathways that address both the physical and psychological needs of people living with diabetes.

Priority groups: younger patients · poor glycemic control · limited social support

Thank You

Diabetes care should address psychological well-being — not glycemic control alone.

Questions & Discussion

SOURCES

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Ms. Mizoun Al Maashani

Presentation



Mizoun Al-Maashani
Registered Nurse
Taqa Hospital

Evaluation of Patient Safety Integration within the Noncommunicable Diseases Program in Primary Healthcare

Quality Improvement Evaluation | Primary Healthcare | Oman

Mizoun Al-Maashani (MOH:57636)

Patient Safety Day Presentation

Introduction

Background and study aim

GLOBAL BURDEN

≈74%

of global deaths are attributed to NCDs.

STUDY FOCUS

3 NCDs

Diabetes • Hypertension • Asthma

DATA SOURCE

EHR

Al Shifa Plus electronic health record data.

- Integrating patient safety into chronic disease management can reduce preventable harm.
- Medication safety and continuity of care are key components of safe NCD management.
- The study evaluated patient safety integration using real-world electronic health record data.

Methodology

Retrospective quantitative quality improvement evaluation

STUDY PERIOD

2023–2025

January 2023 to December 2025

TOTAL SAMPLE

2,489

Adult patients; census sample

SETTING

PHC

Primary healthcare centre in Oman

DIABETES

623

patients



HYPERTENSION

852

patients



ASTHMA

1,014

patients



- Standardized patient safety audit framework aligned with WHO recommendations and national quality standards.
- Data analyzed using IBM SPSS Statistics.
- Descriptive statistics, Pearson's Chi-square test, and odds ratios with 95% confidence intervals were used.

Patient Safety Measurement Framework

Indicators assessed across routine NCD care

MEDICATION SAFETY



Core compliance with safe medication practices

MEDICATION RECONCILIATION



Verification and alignment of medication records

CLINICAL DOCUMENTATION



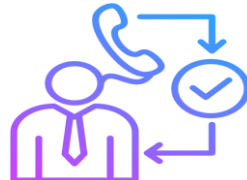
Completeness of clinical records

CONTINUITY OF CARE



Consistency of care across visits

FOLLOW-UP ADHERENCE



Completion of planned follow-up

INCIDENT REPORTING



Medication-related incidents recorded

Framework aligned with WHO patient safety recommendations and national quality standards.

Key Result: Medication Safety Compliance

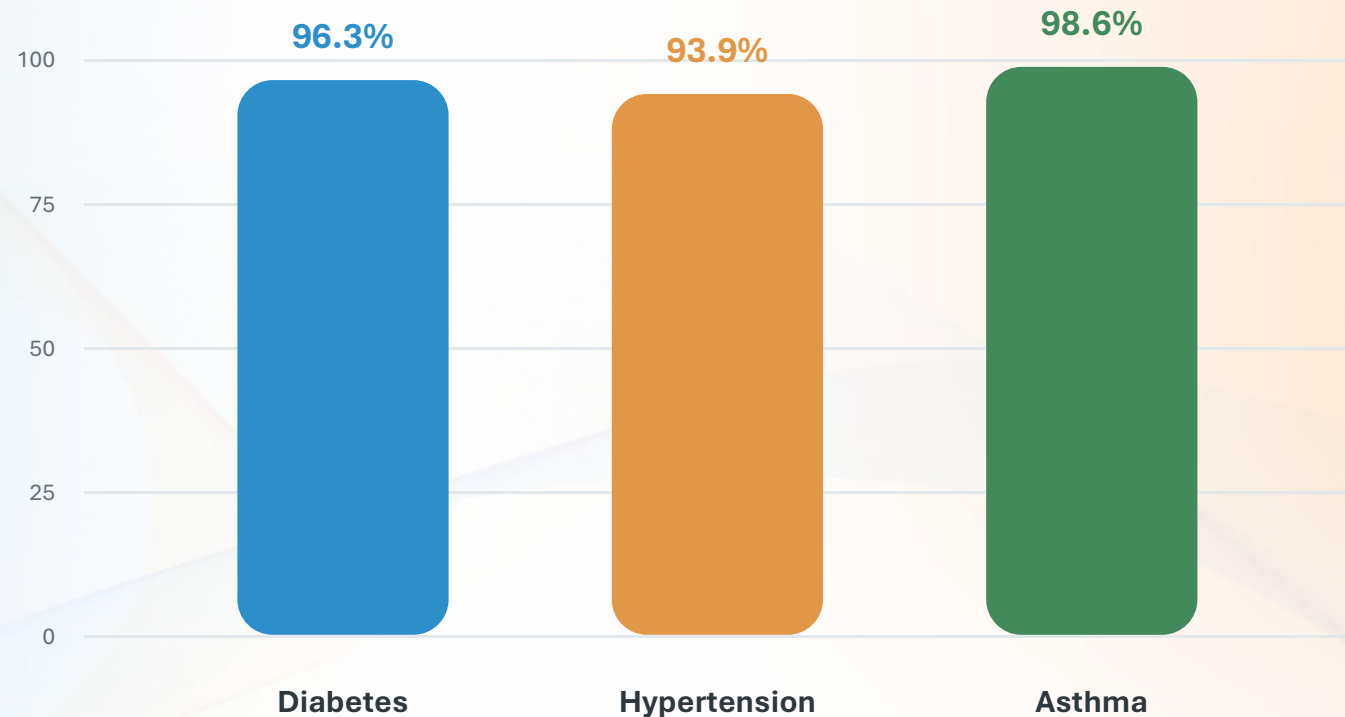
Overall and disease-specific performance

96.4%

2,400 / 2,489 patients

Overall medication safety compliance

$\chi^2(2) = 29.98$
 $p < 0.001$



Medication safety compliance by disease group

The difference among disease groups was statistically significant.

Statistical Findings

Comparative analysis of medication safety compliance

CHI-SQUARE

$$\chi^2(2)=29.98$$

$p < 0.001$

ASTHMA vs HTN

OR 4.64

95% CI 2.55–8.44

DIABETES vs HTN

OR 1.70

95% CI 1.03–2.80

- Asthma patients had significantly higher medication safety compliance than hypertension patients.
- Diabetes patients also had significantly higher compliance than hypertension patients.
- The findings identify hypertension care as an important area for targeted patient-safety improvement.

Interpretation is based on the reported odds ratios and confidence intervals in the study.

Beyond Medication Safety

Reconciliation, documentation, continuity and incident reporting

ASTHMA

100%

Medication reconciliation
Clinical documentation

ASTHMA

98.5%

Continuity of care
Follow-up adherence

INCIDENTS

0.08%

2 medication-related incidents
reported during the study period

- No medication-related incidents were recorded among patients with asthma.
- The results demonstrate the feasibility of embedding patient safety indicators into routine NCD monitoring.
- Electronic health records can support continuous measurement and feedback for quality improvement.

Recommendations & Sustainable Plan

MEASURE

Embed patient safety indicators in NCD dashboards.

MEDICATION SAFETY

Strengthen reconciliation, surveillance and review.

LEARN

Enhance incident reporting, feedback and organizational learning.

DIGITALIZE

Use interoperable digital tools for monitoring and follow-up.

Strategic alignment

WHO Global Patient Safety Action Plan 2021–2030 • Oman Vision 2040 • SDG 3

Conclusion

A practical, scalable patient-safety approach for NCD care

Integrating patient safety indicators into routine NCD monitoring through electronic health records provides a practical and scalable strategy to enhance medication safety, continuity of care, and chronic disease management.

PATIENT SAFETY

96.4%

Overall medication safety compliance

FOLLOW-UP

98.5%

Asthma continuity & follow-up adherence

INCIDENTS

0.08%

Two medication-related incidents

Alignment: WHO Global Patient Safety Action Plan 2021–2030 • Oman Vision 2040 • SDG 3

Source: Study abstract provided for presentation development

References & Acknowledgement

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THANK YOU

Questions & Discussion

Oman Patient Safety Conference &
Exhibition 2026

Oral Presentation • 10 September 2026

Dr. Salma Al Kalbani

Presentation



Dr Salma Rashid Al-Kalbani

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10/9/2026**

Impact of Establishing a Comprehensive Tobacco Cessation Service at a Primary Healthcare Setting on Quit Attempts

A Quality Improvement Project

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10/9/2026

INTRODUCTION

Tobacco: A Global and National Problem

8M+

deaths worldwide
every year

1 in 3

people has access to
cessation support

8.7%

of all deaths in
Oman

0

Oman programmes meet
WHO MPOWER standards

2005

Oman ratified the WHO FCTC in 2005

Vision 2040 targets NCD reduction — but cessation services remain limited and fall short of WHO MPOWER standards.

INTRODUCTION

Why This Project? Rationale & Aim

RATIONALE

- Existing cessation services in Oman are **confined to primary healthcare** and face persistent staffing and medication shortages
- No clear strategy exists to train personnel from disciplines beyond doctors and nurses
- **Opportunities identified:** brief advice at every clinical encounter, systematic documentation, online staff training, private-sector co-funding, and referral incentives

ELIGIBILITY CRITERIA

Included: tobacco users attending the NKHC clinic, July 2024–March 2025, intending to quit.

Excluded: those declining clinic referral or unwilling to quit.

AIM

To establish and evaluate the initial implementation of a structured tobacco cessation clinic in primary healthcare — increasing tobacco users' engagement with cessation services and supporting quit attempts.

Design: Plan-Do-Study-Act (PDSA) quality improvement cycle, N = 30 participants

METHODS

A Plan–Do–Study–Act Cycle

NKHC, Muscat

Jul 2024 – Mar 2025

PLAN



DO



STUDY



ACT

Evidence-based framework
+ staff training

Clinic launched;
free NRT via CSR

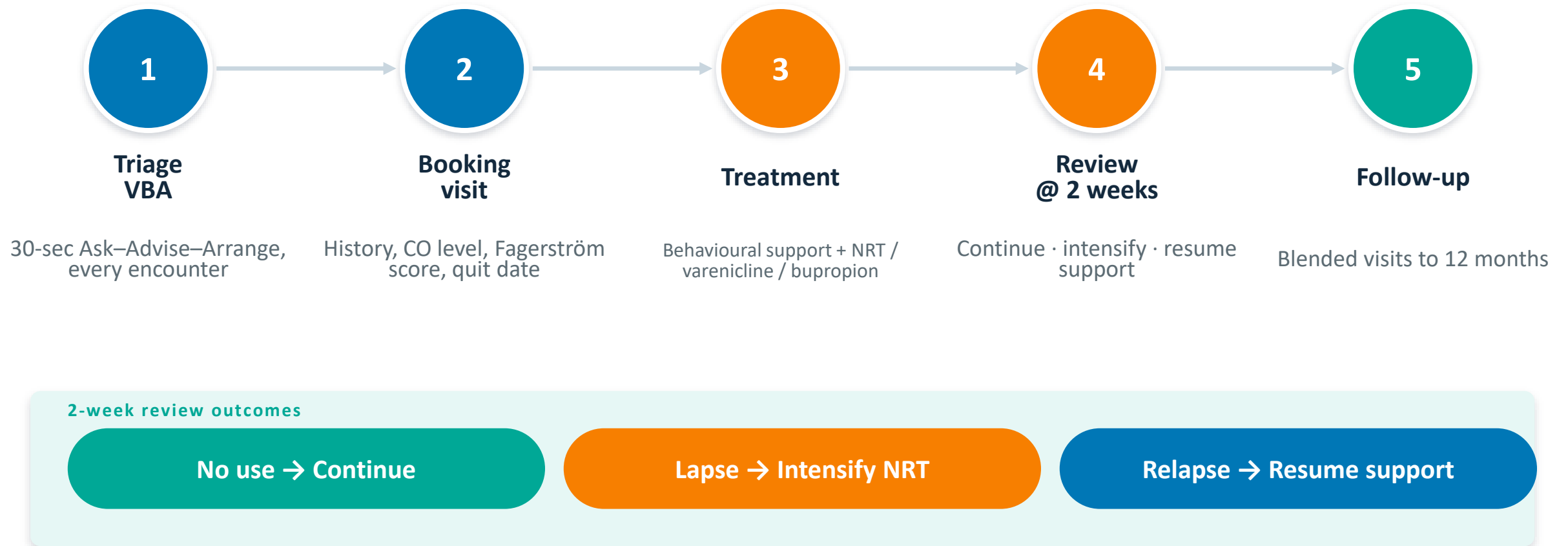
3- & 6-month
review

Refine for the
next cycle

*One complete PDSA cycle is reported here — outcomes of interest: **readiness to quit and quit attempt.***

METHODS

The Cessation Clinical Pathway



METHODS

Data, Ethics & Analysis



EMR data

Al Shifa 3+, anonymised



Ethics approved

DGHS · March 2025



Descriptive stats

SPSS v.27 · n (%)

N = 30

tobacco users attended the cessation clinic, July 2024 – March 2025

RESULTS • N = 30

A New Service, Rapidly Embraced

30

tobacco users seen in the clinic

80.0%

were ready to quit within 1 month

88.9%

of those ready set a quit date
(n=27)

58.3%

received combined NRT (gum +
patch)

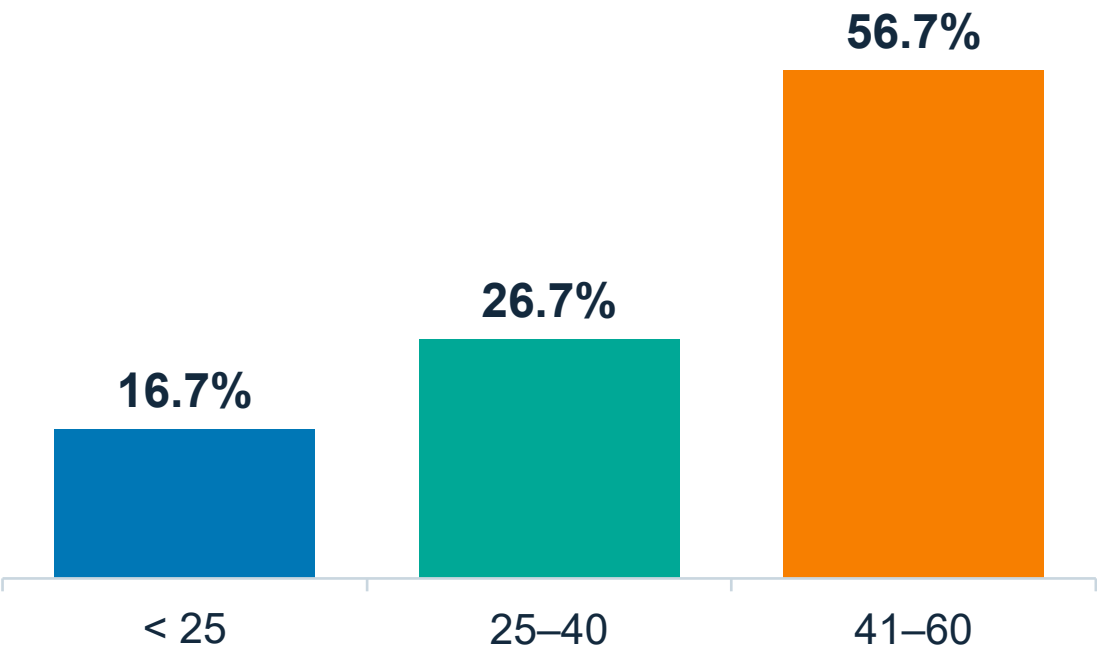
Before July 2024, NKHC had no operational cessation service.

- Over half of attendees (56.7%) were aged over 40; 16.7% were younger than 18
- All participants were asked about tobacco use and advised to quit at every encounter

RESULTS • TABLE 1

Predominantly Older, Employed Men

AGE DISTRIBUTION (YEARS)

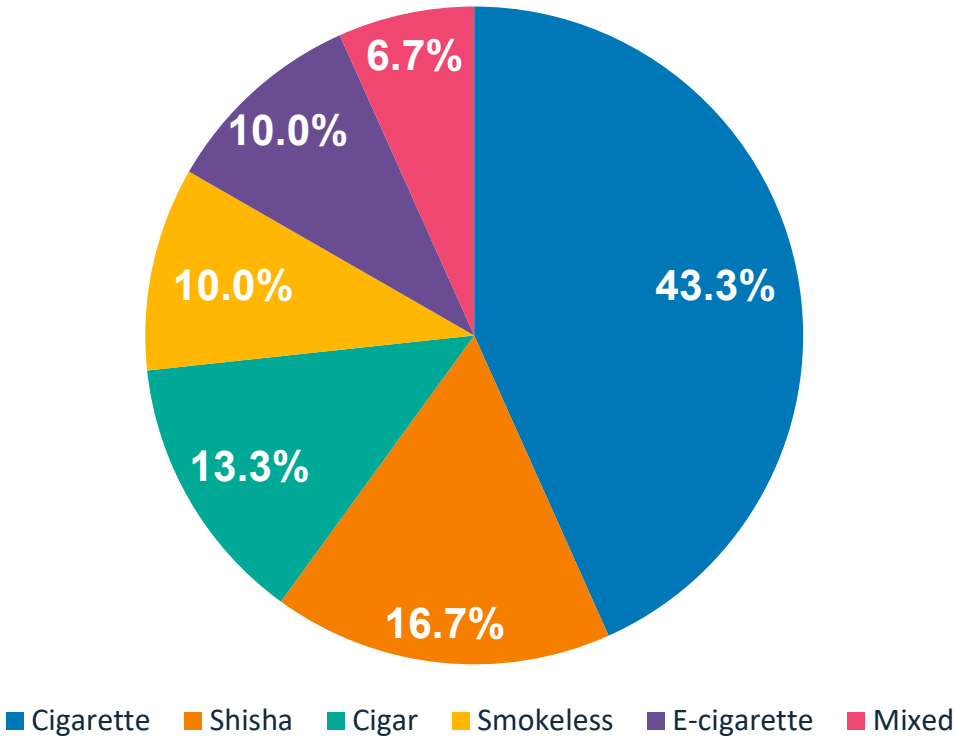


OTHER BASELINE CHARACTERISTICS

Male	96.7%
Employed	76.7%
Married	76.7%
Chronic medical illness	70.0%
Non-alcohol users	93.3%
No mental illness	86.7%

Cigarettes Lead; Habits Start Early, at Home

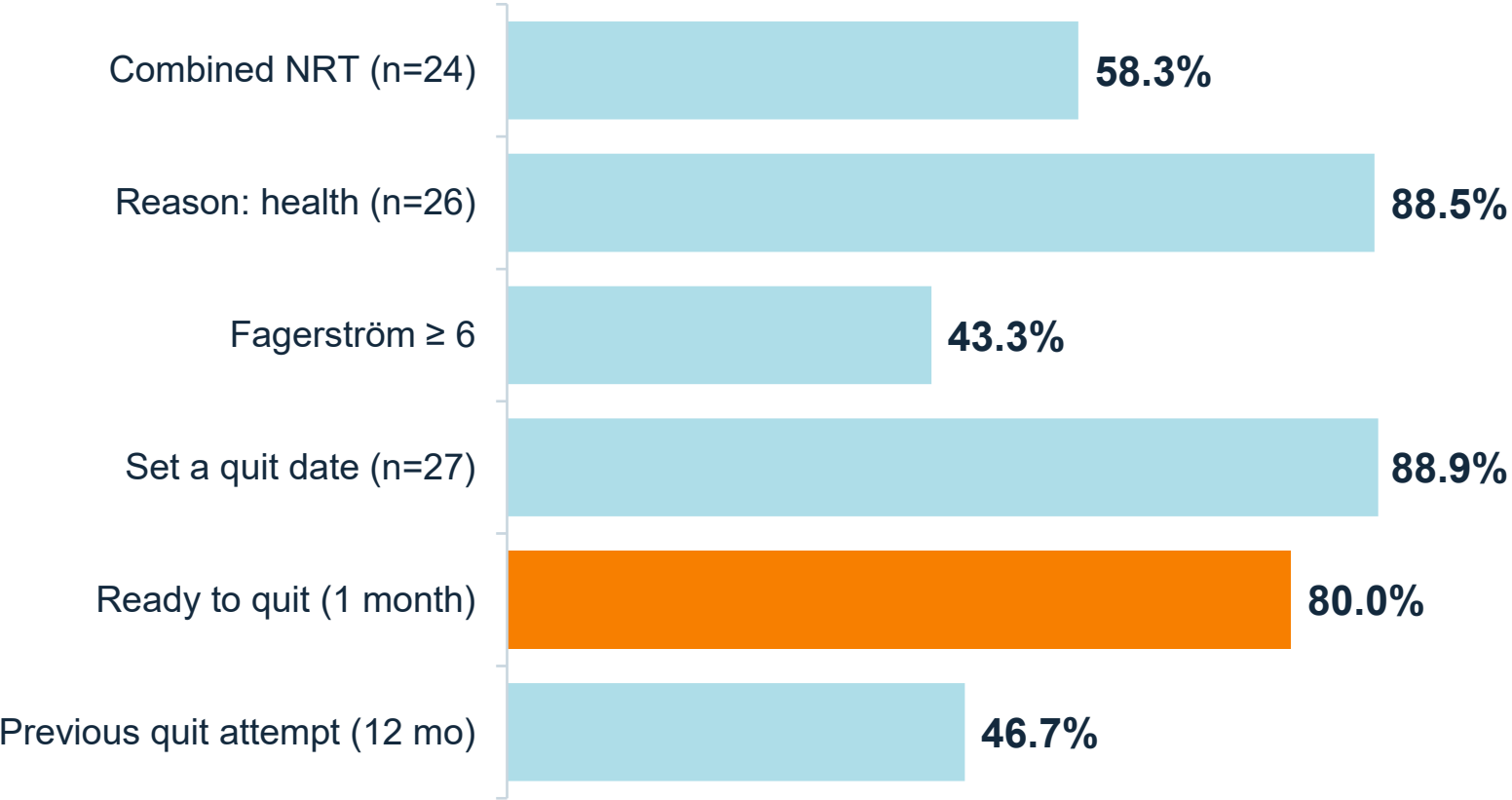
PRODUCTS USED (N=30)



USE BEHAVIOURS

56.7%	initiated tobacco use before age 18
40.0%	most commonly use tobacco at home
63.3%	exposed to secondhand smoke
33.3%	have a family history of tobacco use

4 in 5 Patients Were Ready to Quit



DISCUSSION

Brief Advice + Free Medication Drove Engagement

1

Brief advice works

A scalable standard of care, at every encounter

2

Free NRT removed the barrier

CSR funding solved Oman's affordability gap

3

Uptake stayed modest

Low prevalence (8%) + limited outreach

4

Quit rates: still unknown

Longer follow-up needed for abstinence data

IMPLICATIONS

A Blueprint for a National Programme

1

Embed brief advice as a standard of care across all healthcare settings

2

Standardise tobacco-use documentation within electronic health records

3

Guarantee access to a Quitline, subsidised medication and behavioural counselling

4

Develop and implement a national tobacco cessation guideline

5

Expand training to allied health disciplines to widen service capacity

6

Build a scalable, sustainable model integrated into the national NCD prevention agenda

This project provides a scalable model for implementing a national tobacco cessation service in Oman.

DISCUSSION

Proof of Concept, With Clear Boundaries

✓ STRENGTHS

First of its kind in Oman

Comprehensive service in primary care

Best-practice model

Behavioural support + free medication

Barrier solved

CSR funding closed the affordability gap

✗ LIMITATIONS

Single centre

Findings may not generalise elsewhere

No multicentre comparison

Can't assess variability across areas

Short follow-up

Quit rate & long-term impact unmeasured

No national Quitline

Limits reach in rural/underserved areas

CONCLUSION

Feasible, Effective and Ready to Scale

- The establishment of a comprehensive tobacco cessation service at North Al-Khuwair Health Center **demonstrates the feasibility of an integrated** cessation model within primary care in Oman.
- Brief advice, behavioural counselling and free access to pharmacotherapy were associated with high patient engagement and readiness to quit — offering a scalable foundation for a national programme aligned with WHO FCTC commitments.

Next step: Further studies are required to assess sustained quit rates and the long-term, multicentre impact of this model.

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THANK YOU

Questions & Discussion

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