CONEZTANDO

XXXII Congreso de Comunicación y Salud

Del 23 al 25 de marzo de 2023

ZARAGOZA

#ganasdeconeZtar

Enseñar y aprender el modelo deliberativo de la Toma de Decisiones Compartidas

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Objetivos

- Conocer el estado actual de la toma de decisiones compartida (TDC) y sus indicaciones.
- Describir y practicar habilidades de entrevista clínica que favorecen la TDC en la consulta.
- Conocer y ensayar algunas herramientas de ayuda para pacientes en la TDC.
- Aprender a cómo enseñar y evaluar la TDC.

La TDC es…

- A. El profesional presenta información basada en la evidencia y el paciente decide qué hacer.
- B. El paciente le explica al profesional sus preferencias y comparte sus experiencias, y el profesional decide qué hacer.
- C. Es como el consentimiento informado.
- D. El profesional recomienda qué hacer después de presentar las opciones que hay.
- E. Es una conversación entre el paciente y el profesional para decidir juntos qué hacer.
- F. Cuando los pacientes utilizan una herramienta para tomar la mejor decisión.

Víctor Montori

La Toma de Decisiones compartidas es…

Una conversación entre clínicos y pacientes donde **piensan, hablan y sienten juntos** como resolver la situación.

Las opciones basadas en la evidencia son tratadas cómo **hipótesis y evaluadas en la conversación**, hasta encontrar la solución que tenga más **sentido intelectual, emocional y práctico** dada la situación del paciente.

Antecedentes: cambio social y cultural

Modelo Paternalista

Modelo deliberativo centrado en el paciente

Modelos comunicativos

PATERNALISTA

Información y recomendaciones

INFORMATIVO

Información

MODELO DELIBERATIVO CENTRADO EN EL PACIENTE

Información y recomendaciones

Valores y preferencias

Role play…

- La Sra Margarita es una paciente de 60 años, **con colesterol total de 290mg/dL, HDL 35mg/dL, fumadora, hipertensa (140/90)**, IMC 32, y dieta insaludable.

  - ***Riesgo Cardiovascular REGICOR 13%.***

Preparado exclusivamente para _____

1 ¿Qué se toma en cuenta para calcular mi riesgo de tener un ataque al corazon en los siguientes 10 años?

- Edad
- Sexo
- Años con diabetes
- Fumar
- Hemoglobina A1c
- Presión arterial
- Colesterol
- Proteína en su orina

2 ¿Cuál es mi riesgo de tener un ataque al corazón en los siguientes 10 años?

El riesgo para 100 personas como usted que **NO** toman estatinas.

NO ESTATINAS

80 personas no tienen un ataque al corazón (verde)

20 personas tienen un ataque al corazón (rojo)

El riesgo para 100 personas como usted que **SI** toman estatinas.

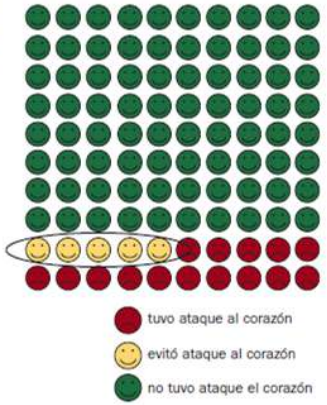
SI ESTATINAS

80 personas igual no tienen un ataque al corazón (verde)

5 personas **EVITARON** el ataque al corazón (amarillo)

15 personas igual tienen un ataque al corazón (rojo)

95 personas no recibieron beneficio alguno de tomar estatinas



3 ¿Cuáles son las desventajas de tomar estatinas (pastillas para el colesterol)?

- Las estatinas tienen que usarse todos los dias por largo tiempo (quizás para siempre).
- Las estatinas cuestan dinero (que sale de su bolsillo o lo paga su plan o seguro de medicamentos)
- **Efectos adversos comunes:** nausea, diarrea, estreñimiento (casi todos los pacientes toleran estas molestias)
- **Dolor y rigidez muscular:** 5 de cada 100 pacientes (algunos tienen que dejar de tomar las estatinas por esta molestia)
- **Los examenes de sangre sobre el hígado salen altos (sin dolor, sin daño permanente al hígado):** 2 de cada 100 pacientes (algunos pacientes tienen que dejar de tomar las estatinas por este problema)
- **Daño muscular y daño al riñón:** 1 de cada 20,000 pacientes (deben de dejar de tomar estatinas)

4 ¿Qué quiere hacer ahora?

- ☐ ¿Tomar (o dejar de tomar) estatinas?
- ☐ ¿No tomar (o dejar de tomar) estatinas?
- ☐ ¿Decidir en otro momento?

ELEVADO (15-30%) | Adaptado para su uso en Mount Sinai por investigadores de Mount Sinai en colaboración con investigadores del KER UNIT de la Clínica Mayo, 2007.

https://statindecisionaid.mayoclinic.org/


Valores y preferencias del paciente
Contexto
Evidencia científica

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Situaciones frecuentes en la Atención Primaria apropiadas para la TDC

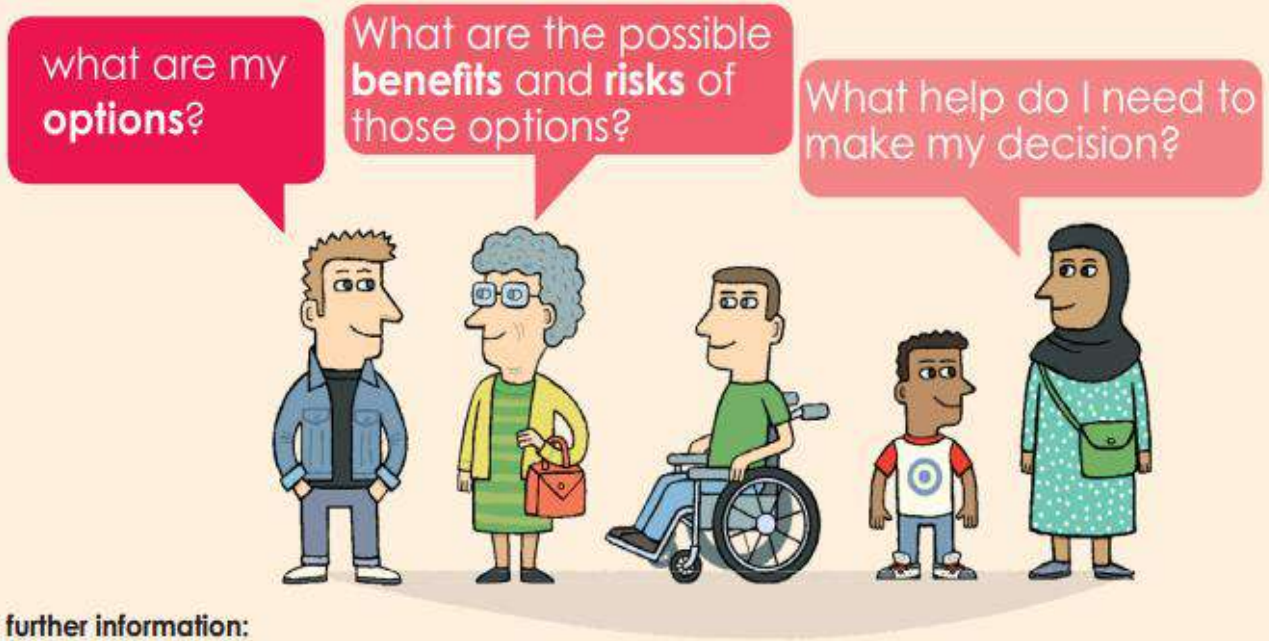
- **Tratamiento farmacológico:** hipertensión, colesterol, diabetes…
- **Screening:** para cáncer de mama, colorrectal, próstata…
- **Derivación a cirugía**: para prótesis de cadera, de rodilla, cirugía de espalda o intervención de cataratas.
- **Decisiones al final de la vida** y últimas voluntades (*Shared Mind Decisions – Ronald Epstein)*
- Deprescripción farmacológica

Barreras percibidas por los PACIENTES

Miedo	Falta de información	Aceptación
• A **sentirse solo** en la decisión y abandonado en la atención • A tomar la **decisión "incorrecta"** • A devaluar la autoridad del médico	• Sobre la **enfermedad** • Sobre las **opciones terapéuticas**	• Del rol **paternalista** del médico

Ask 3 Questions

Sometimes there will be choices to make about your healthcare. If you are asked to make a choice, make sure you get the answers to these 3 questions:



For further information:

W www.bristolccg.nhs.uk
E contactus@bristolccg.nhs.uk
T 0117 976 6600
@Bristol_CCG

MAGIC
Making good decisions in collaboration

NHS
Bristol Clinical Commissioning Group

Barreras percibidas por los profesionales de la salud

Los pacientes no quieren…

¿Cómo podemos medirlo?

No tenemos las herramientas necesarias…

Tenemos otras demandas y prioridades…

Ya lo hacemos!

No tengo tiempo suficiente…

Una cultura receptiva sólo existirá realmente si los clínicos consideran la toma de decisiones compartida como una práctica habitual y un componente fundamental de una atención sanitaria segura y compasiva para los pacientes.

Implementing shared decision making in the NHS: lessons from the MAGIC programme. BMJ 2017;357:j1744

Razones para la TDC

- **Proporciona varias** opciones de tratamiento
- Evalúa los **beneficios y los riesgos**
- Incluye el **NO hacer ningún tratamiento**
- **Trabaja los valores** del paciente y sus preferencias fundamentales para la toma de la decisión final
- ¿Por qué muchas personas quieren participar en la TDC?
  - *Tranquilidad de sentirse **bien informado***
  - ***Consideración y adaptación** a las preferencias individuales*
  - *Facilita la participación y el control y por lo tanto, el **empoderamiento***

La TDC puede contribuir a…

- **Mejorar la comunicación**
- Hacer a los pacientes **más activos** → pacientes más satisfechos.
- **Comprensión** de la enfermedad y su manejo.
- **Mejorar la adherencia** al plan de tratamiento y cambios de estilos de vida.
- Corregir la infra y supra-utilización de los recursos.

Stacey D et al; Decision aids for people facing health treatment or screening decisions (Review) 2014 The Cochrane Collaboration

Guías de ayuda a la decisión

Guías **pre-consulta** (webs, videos, documentos)

Guías para la deliberación **en consulta**.

Características de las herramientas (MBE-GRADE, concisas, comprensibles, ayude a la Deliberación)

Aplicaciones:

- Prevención (vacunación virus papiloma, reducción RCV…..)
- Screening y diagnóstico (cáncer…….)
- Tratamiento y manejo (artrosis, cáncer de mama…..)

Evidencia de utilización y eficiencia para la decisión.

Criterios de la International Patient Decision Aid Standards (IPDAS) Collaboration

(Glyn Elwyn, Annette O'Connor, Dawn Stacey et al 2006).

- Obtener la **información básica** del problema de salud.
- **Comparar** las **opciones** de tratamiento.
- **Balancear** los **pros y contras** de cada opción.
- Destacar los **aspectos claves** del problema de salud.
- **Preguntas** importantes y frecuentes.
- ¿Qué es **lo más importante** para usted?, ¿cuáles son sus **preferencias**?.
- **Experiencias** de otros pacientes.
- ¿**Qué más necesita** para tomar su decisión?.

Herramientas de ayuda a la TDC online

- **Patient Decision Aids (**Ottawa Hospital Research Institute (OHRI) https://decisionaid.ohri.ca/
- **Mayo Clinic Shared Decision Making National Resource Center** https://carethatfits.org/
- My Health decisions (EBSCO Health Option Grids). https://www.ebsco.com/health-care/products/my-health-decisions
- HealthWise. https://www.healthwise.net/ohridecisionaid/
- Servicio Canario de Salud. Participa y decide sobre tu salud https://pydesalud.com/
- Canal Salut Decisions Compartides http://decisionscompartides.gencat.cat/ca/inici

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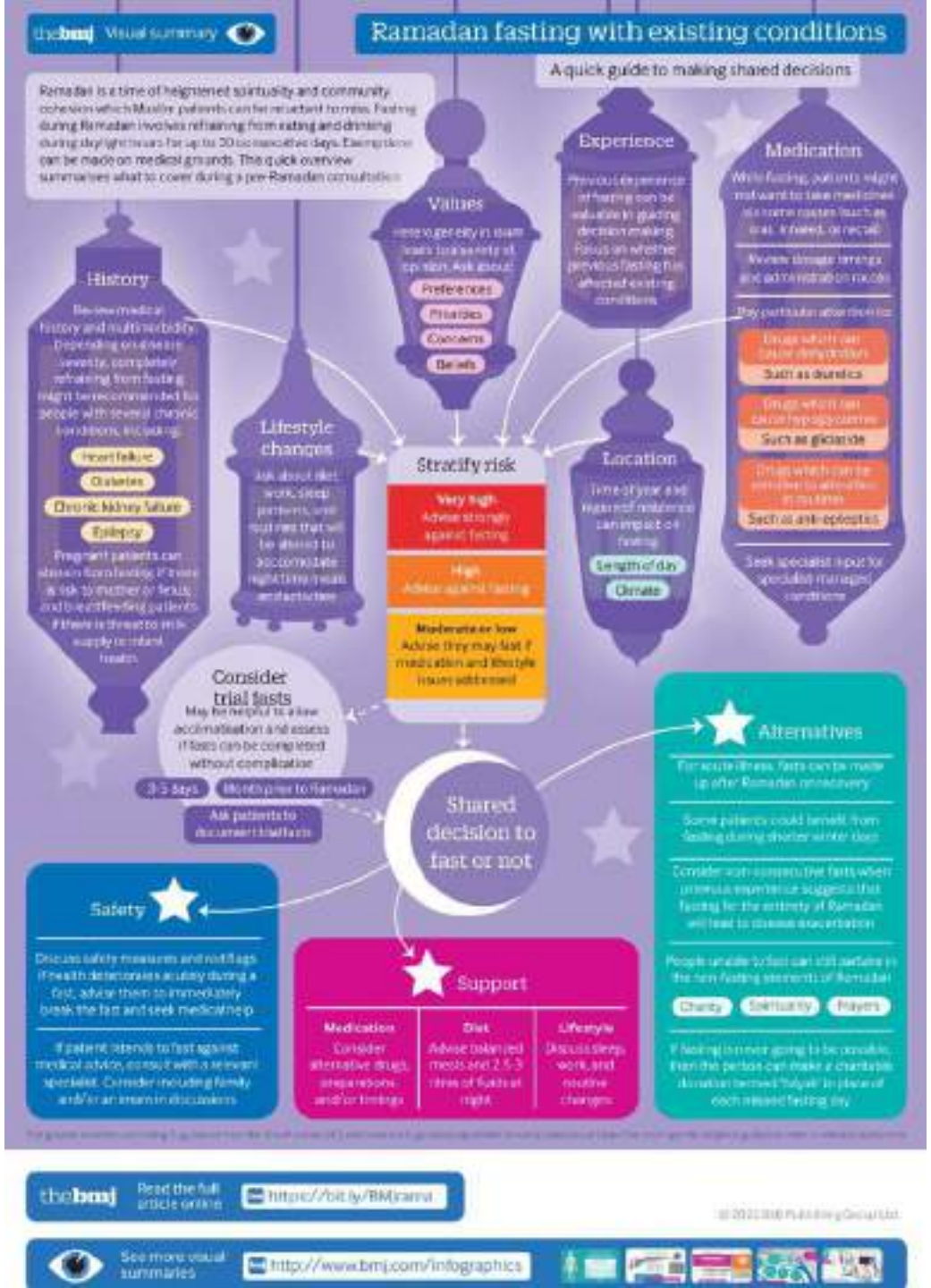

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Guía de ayuda a la decisión para el tratamiento farmacológico de la **Depresión**

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https://carethatfits.org/depression-medication-choice/

Guía de ayuda a la decisión para el tratamiento farmacológico de la **Diabetes mellitus tipo 2**

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Comunicación y Salud

SEMFYC

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Rutina diaria

Metformina

24 O AM PM

Insulina

24 O AM PM

Pioglitazona

24

Liraglutida / Exenatida

24 O NOCHE / AM PM

Inyectar 1 hora antes de las comidas.

Sulfonilureas
Glipizida, Glimepirida, Gliburida

24 O AM PM

Gliptinas

24

Inhibidores de SGLT2

24

Vigilancia diaria del azúcar

Metformina

D	L	M	M	J	V	S	
							No es necesario monitorizar

Insulina

D	L	M	M	J	V	S	
*	*	*	*	*	*	*	Monitorizar 1 a 2 veces al día. Esto puede ser menos frecuente una vez que el azúcar esté estable.

Pioglitazona

D	L	M	M	J	V	S	
							No es necesario monitorizar

Liraglutida/Exenatida

D	L	M	M	J	V	S	
*	*	*	*	*	*	*	Monitorizar dos veces al día después de las comidas cuando se utiliza con sulfonilureas; de lo contrario, no es necesario hacerlo.

Sulfonilureas
Glipizida, Glimepirida, Gliburida

D	L	M	M	J	V	S	
*		*		*			Monitorizar 2 a 5 veces al día. Esto puede ser menos frecuente una vez que el azúcar esté estable.

Gliptinas

D	L	M	M	J	V	S	
							No es necesario monitorizar

Inhibidores de SGLT2

D	L	M	M	J	V	S	
							No es necesario monitorizar

Costo

Estas cifras son estimadas y deben utilizarse para fines comparativos solamente. Los costos directos varían con el tiempo, según la farmacia, la cobertura del seguro médico, la preparación y la dosis. En algunos casos los ahorros potenciales pueden tener un costo comparable al de los genéricos.

Metformina (Existe genérico)
$0.10 por día — $8 / 3 meses

Insulina (No existe genérico; el precio varía según la marca)

Lantus:	Vial, por 100 uni.: $26 Pluma, por 100 uni.: $26
NPH:	Vial, por 100 uni.: $2.50 Pluma, por 100 uni.: $28
Análogo de insulina de duración corta:	Vial, por 100 uni.: $25 Pluma, por 100 uni.: $30

Pioglitazona (Existe genérico)
$0.50 por día — $42 / 3 meses

Liraglutide/Exenatide (No existe genérico)
$20.00 por día — $1,800 / 3 meses

Sulfonilureas
Glipizida, Glimepirida, Gliburida (Existen genéricos)
$0.10 por día — $12 / 3 meses

Gliptinas (No existe genérico)
$12.00 por día — $1,300 / 3 meses

Inhibidores de SGLT2 (No existe genérico)
$12.00 por día — $1,300 / 3 meses

Elección del medicamento para la diabetes

Una guía para elegir el medicamento adecuado para usted.

Metformina
Insulina
Pioglitazona
Liraglutida/Exenatida
Sulfonilureas
Gliptinas
Inhibidores de SGLT2

Esta información está basada en los mejores estudios de investigación disponibles. Fue preparada por investigadores de Mayo Clinic sin financiamiento de la industria farmacéutica.

https://carethatfits.org/diabetes-medication-choice/

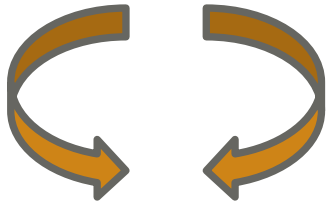
Modelo comunicacional de los tres pasos

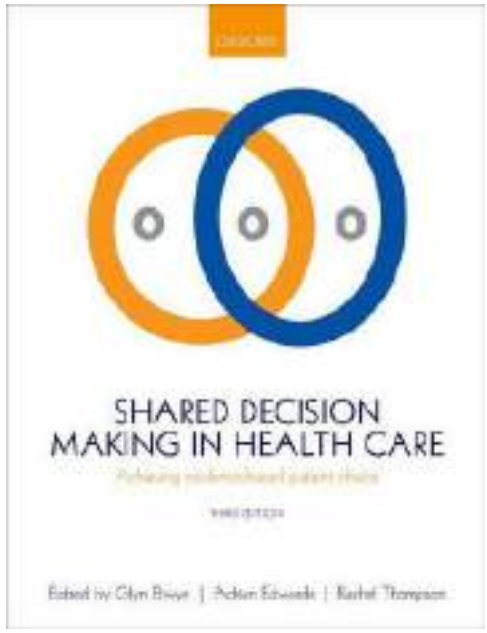
Elwyn G; Lloyd A; May C et al 2014. Collaborative deliberation: a model for patient Care: Patient Education and Counseling, 97:158-84)

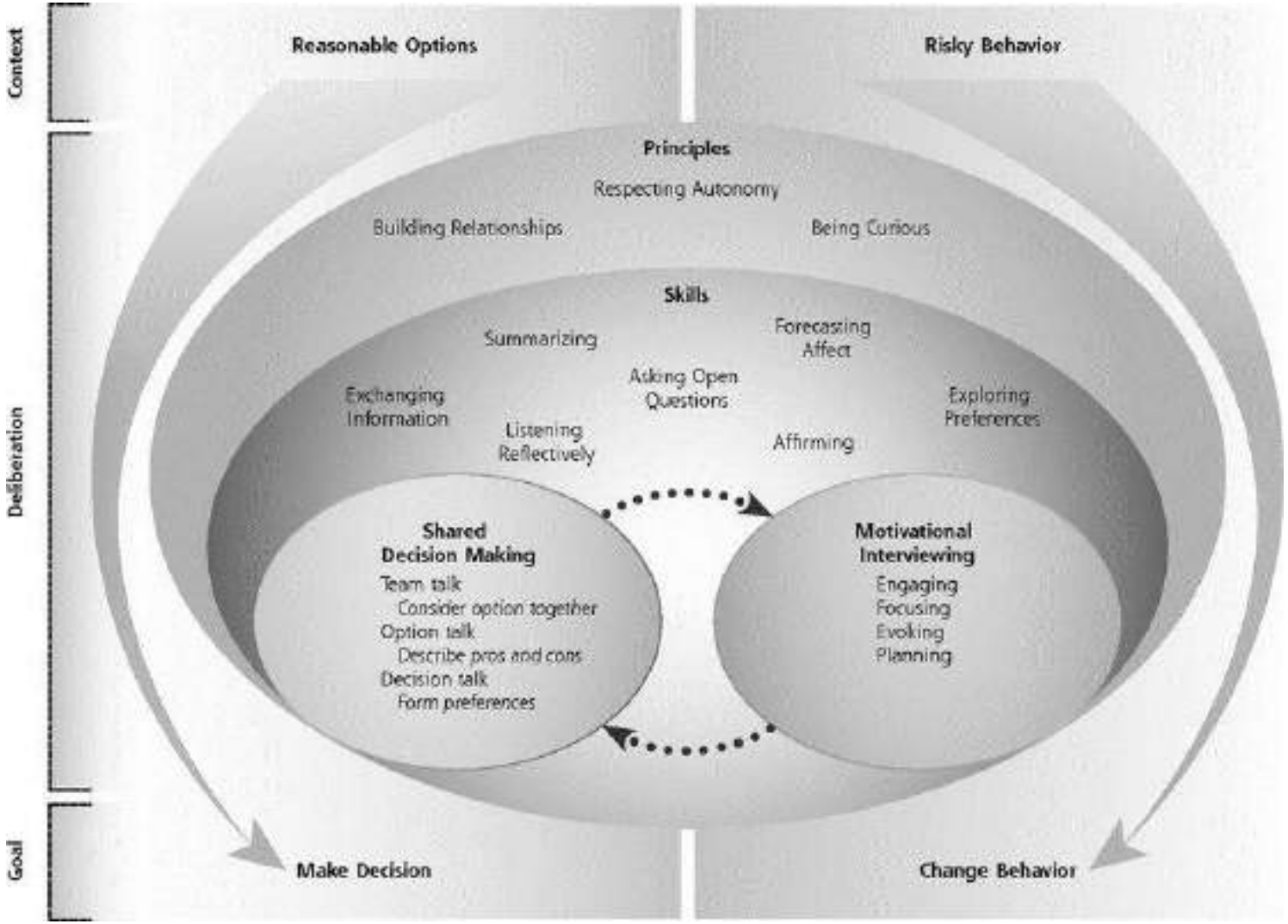
Habilidades comunicativas

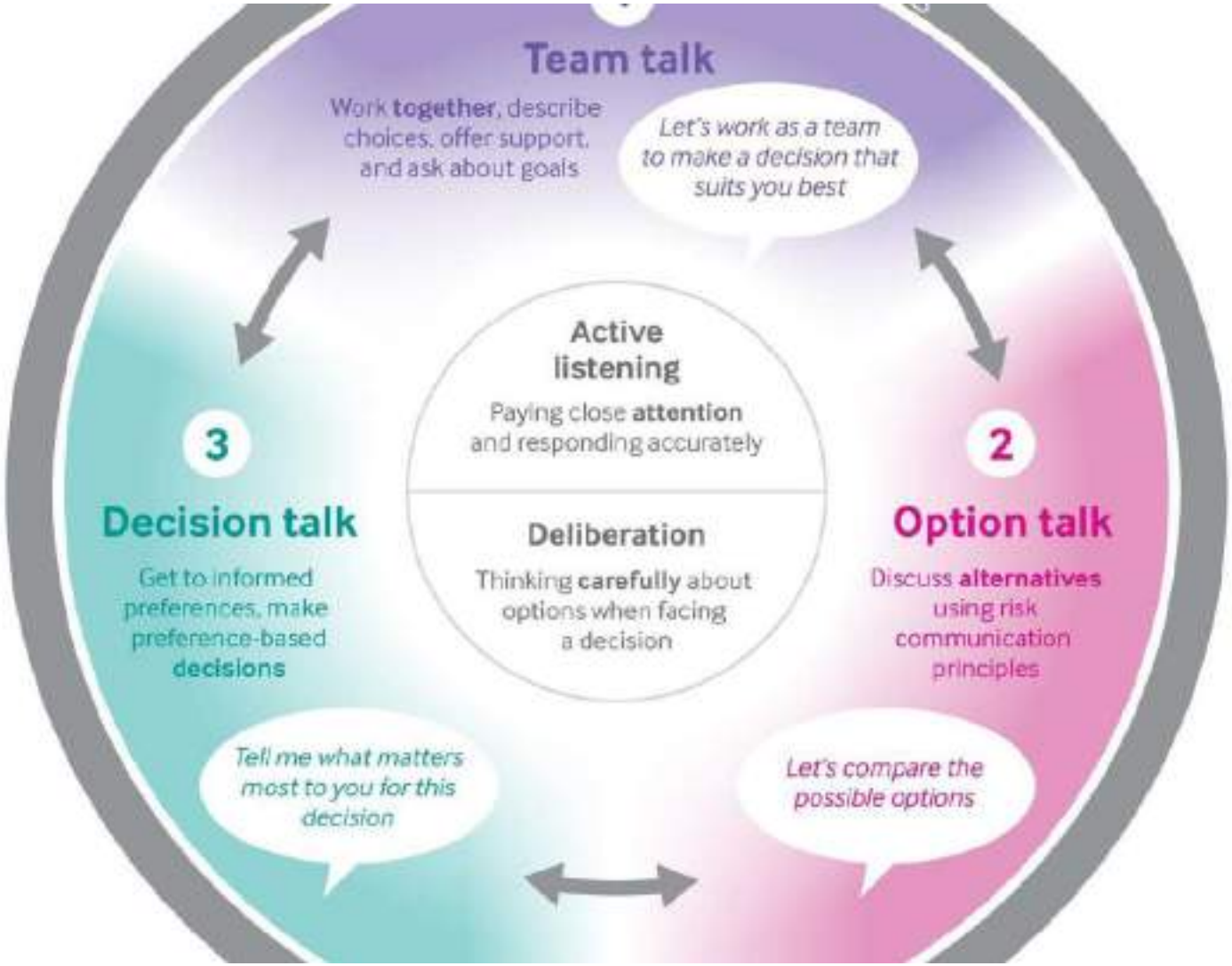
- **Habilidades de entrevista clínica**: escucha activa, motivación al paciente para la TDC, proporcionar/intercambiar información, negociar, deliberar, llegar a acuerdos mutuos, respetar las decisiones finales.
- **Modelo de TDC y modelo de entrevista motivacional (EM):** mismos principios → respetan la autonomía y construyen relaciones.
  - *Cuando la motivación para el cambio va seguida de una TDC para ayudar a decidir la opción preferida para conseguir el control*

Integración de la entrevista motivacional y toma de decisiones compartidas









Glyn Elwyn, Marie Anne Durand, Julia Song, et al. A three-talk model for shared decision making: multistage consultation process. BMJ 2017;359:j4891 http://dx.doi.org/10.1136/bmj.j4891

Pasos para la TDC / Beneficios de la TDC

Definir el problema. Evaluar predisposición para la TDC.

Informar sobre las opciones (MBE) Evaluar los riesgos y beneficios.

Explorar preferencias individuales respecto a las opciones.

Escoger con corresponsa-bilidad.

Role plays por grupos

- Caso Hiperplasia Benigna de Próstata
- Caso Depresión
- Caso Diabetes
- Caso Síndrome del túnel carpiano
- Caso Fibrilación Auricular
- Caso Desprescripción Benzodiazepinas
- Caso Desprescripción IBP

¿Cómo evaluar la TDC?

- Puntos de vista (observador, clínico, paciente, diádico o triádico)

- Más fiabilidad y traducidos al castellano: versión **OPTION12** (observador), **SDM-Q9** (paciente) y **SDM-Q-Doc** (profesional sanitario).
- **OPTION 5.** Muy eficiente. No traducido ni validado al castellano.

The Observer OPTION [5] Measure –Score Sheet

Date Number / Name

Item 1: For the health issue being discussed, the clinician **draws attention to or confirms** that alternate treatment or management options exist or that the need for a decision exists. If the patient rather than the clinician draws attention to the availability of options, the clinician responds by agreeing that the options need deliberation.
0 = No effort 1 = Minimal effort 2 = Moderate effort 3 = Skilled effort 4 = Exemplary effort

Item 2: The clinician reassures the patient or re-affirms that the clinician **will support the patient to become informed or deliberate** about the options. If the patient states that they have sought or obtained information prior to the encounter, the clinician supports such a deliberation process.
0 = No effort 1 = Minimal effort 2 = Moderate effort 3 = Skilled effort 4 = Exemplary effort

Item 3: The clinician **gives information or checks understanding about the options** that are considered reasonable (this can include taking no action), to support the patient in comparing alternatives. If the patient requests clarification, the clinician supports the process.
0 = No effort 1 = Minimal effort 2 = Moderate effort 3 = Skilled effort 4 = Exemplary effort

Item 4: The clinician makes an effort to **elicit the patient's preferences** in response to the options that have been described. If the patient declares their preference(s), the clinician is supportive.
0 = No effort 1 = Minimal effort 2 = Moderate effort 3 = Skilled effort 4 = Exemplary effort

Item 5: The clinician makes an **effort to integrate the patient's elicited preferences** as decisions are made. If the patient indicates how best to integrate their preferences as decisions are made, the clinician makes an effort to do so.
0 = No effort 1 = Minimal effort 2 = Moderate effort 3 = Skilled effort 4 = Exemplary effort

Scoring Summary (see Manual for details).

Score	Description
0 = No effort	Zero effort observed.
1 = Minimal effort	Effort to communicate could be implied or interpreted.
2 =Moderate effort	Basic phrases or sentences used.
3 = Skilled effort	Substantive phrases or sentences used.
4 = Exemplary effort	Clear, accurate communication methods used.

Cuestionario sobre la toma de decisiones compartida (TDC-C-9)

¿Por qué motivo acudió a su médico/a (*p. ej. con qué síntomas, diagnóstico, problema de salud*)?:

_____

_____

¿Qué decisión se tomó (*p. ej. qué tratamiento*)?:

_____

_____

Las siguientes afirmaciones están relacionadas con la experiencia que ha tenido en la consulta con su médico/a. Por favor, marque con una cruz su nivel de acuerdo o desacuerdo con estas afirmaciones.

1. Mi médico/a me dijo expresamente que debía tomarse una decisión.
   a) Totalmente en desacuerdo
   b) Muy en desacuerdo
   c) Algo en desacuerdo
   d) Algo de acuerdo
   e) Muy de acuerdo
   f) Totalmente de acuerdo

2. Mi médico/a quería saber exactamente cómo me gustaría participar en la toma de decisiones.
   a) Totalmente en desacuerdo
   b) Muy en desacuerdo
   c) Algo en desacuerdo
   d) Algo de acuerdo
   e) Muy de acuerdo
   f) Totalmente de acuerdo

3. Mi médico/a me informó de que existen distintas opciones de tratamiento para mi problema de salud.
   a) Totalmente en desacuerdo
   b) Muy en desacuerdo
   c) Algo en desacuerdo
   d) Algo de acuerdo
   e) Muy de acuerdo
   f) Totalmente de acuerdo

OPTION Observación de participación de pacientes

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Nombre della evaluador/a		Código della clínico/a		Fecha de la evaluación	Día	Mes	Año
Número de consulta							
Duración de la consulta (min, seg)							
Personal médico (M = 1, F = 2)		Edad		Sexo			
Paciente (M = 1, F = 2)		Edad		Sexo			
Consulta nueva		1					
Consulta subsecuente		2					
Consulta en colaboración		3					
Descripción del problema principal							

1	Ella clínico/a llama la atención a un problema ya identificado que requiere un proceso de toma de decisión.	0	1	2	3	4
2	Ella clínico/a menciona que hay más de una manera de tratar el problema ('equilibrio').	0	1	2	3	4
3	Ella clínico/a evalúa la manera en que ella paciente prefiere recibir la información para ayudar con el proceso de la toma de decisión (ej: conversación, lectura de material impreso, evaluación de datos gráficos, uso de videos u otros medios).	0	1	2	3	4
4	Ella clínico/a da una lista de 'opciones', incluyendo la posibilidad de 'no hacer nada.'	0	1	2	3	4
5	Ella clínico/a explica las ventajas y desventajas de las opciones ella paciente (incluyendo 'no hacer nada' como una opción)	0	1	2	3	4
6	Ella clínico/a explora las expectativas (o ideas) della paciente sobre cómo se puede tratar ellos problema/s.	0	1	2	3	4
7	Ella clínico/a explora las inquietudes (miedos) della paciente sobre cómo se puede tratar ellos problema/s.	0	1	2	3	4
8	Ella clínico/a se asegura que ella paciente haya entendido la información.	0	1	2	3	4
9	Ella clínico/a da la oportunidad de hacer preguntas concretas durante el proceso de toma de decisión.	0	1	2	3	4
10	Ella clínico/a obtiene el nivel preferido de participación della paciente en la toma de decisión.	0	1	2	3	4
11	Ella clínico/a indica que hay que dar el paso de tomar una decisión (o aplazarla).	0	1	2	3	4
12	Ella clínico/a indica que hay que revisar la decisión (o aplazarla).	0	1	2	3	4

	Niveles de observación
0	No se observa el comportamiento.
1	Se hace el mínimo intento de mostrar el comportamiento.
2	Se observa el comportamiento y se llega a un nivel mínimo de destreza.
3	Se muestra el comportamiento a un buen nivel.
4	Se muestra el comportamiento a un nivel muy alto.

Cuestionario sobre la toma de decisiones compartida (SDM-Q.Doc)

¿Cuál fue el motivo por el que el paciente acudió a consultar con usted? (p.ej. ¿cuáles eran sus síntomas? o ¿cuál fue su diagnóstico?).

¿Qué decisión se tomó? (p.ej. ¿qué tratamiento?).

Instrucciones: Los siguientes enunciados se relacionan con la consulta. Por favor, seleccione marcando con una cruz la respuesta que mejor le parezca.

1.- Le he informado claramente a mi paciente que se debe tomar una decisión sobre su atención.

Totalmente en desacuerdo	Muy en desacuerdo	Algo en desacuerdo	Algo de acuerdo	Muy de acuerdo	Totalmente de acuerdo
☐	☐	☐	☐	☐	☐

2.- Le pregunté a mi paciente exactamente como le gustaría participar en la toma de decisiones.

Totalmente en desacuerdo	Muy en desacuerdo	Algo en desacuerdo	Algo de acuerdo	Muy de acuerdo	Totalmente de acuerdo
☐	☐	☐	☐	☐	☐

3.- Le informé a mi paciente que existen diferentes opciones de tratamiento para su problema de salud.

Totalmente en desacuerdo	Muy en desacuerdo	Algo en desacuerdo	Algo de acuerdo	Muy de acuerdo	Totalmente de acuerdo
☐	☐	☐	☐	☐	☐

4.- Le expliqué claramente a mi paciente las ventajas y desventajas de los posibles tratamientos.

Totalmente en desacuerdo	Muy en desacuerdo	Algo en desacuerdo	Algo de acuerdo	Muy de acuerdo	Totalmente de acuerdo
☐	☐	☐	☐	☐	☐

Decisiones compartidas paso a paso…

- **Informarse sobre el diagnóstico**
  - *Opciones de tratamiento o posibilidad de **no** hacerlo*
  - *Evaluación de beneficios/riesgos*
- **Compartir** las preferencias
- Escoger con **corresponsabilidad**
- **Habilidades comunicativas**: Exploración de las ideas, valores, preocupaciones, expectativas y el contexto
  - *Definición y acuerdo sobre el problema*
  - *Exposición, explicación y exploración conjunta de las opciones y toma de una decisión final.*

CONEZTANDO
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Mentes compartidas: la Toma de Decisiones Compartida en situaciones graves y complejas.

R Epstein, R Street, Shared Mind: Communication, Decision Making, and Autonomy in Serious Illness *Ann Fam Med* 2011;9:454-461.

- En el contexto de una enfermedad grave, las personas suelen **depender de otros**
- **Mentes compartidas**: formas donde pueden emerger nuevas ideas y perspectivas a través de la puesta en común de pensamientos, sentimientos, percepciones, significados e intenciones entre dos o más personas.
- **La autonomía y la toma de decisiones** debe tener en cuenta también las **perspectivas que surgen** de las **interacciones** entre ellos y no sólo las individuales.

Role play todos juntos

- TDC en un paciente con enfermedad de Alzheimer y su familia
- Reflexión/aplicación del modelo de Shared Mind Decisions

Epstein R.; Whole mind and Shared mind in clinical decision-making. Patient Education and counselling 90 (2013) 200-206.

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Pensar , hablar y sentir juntos

como resolver la situación

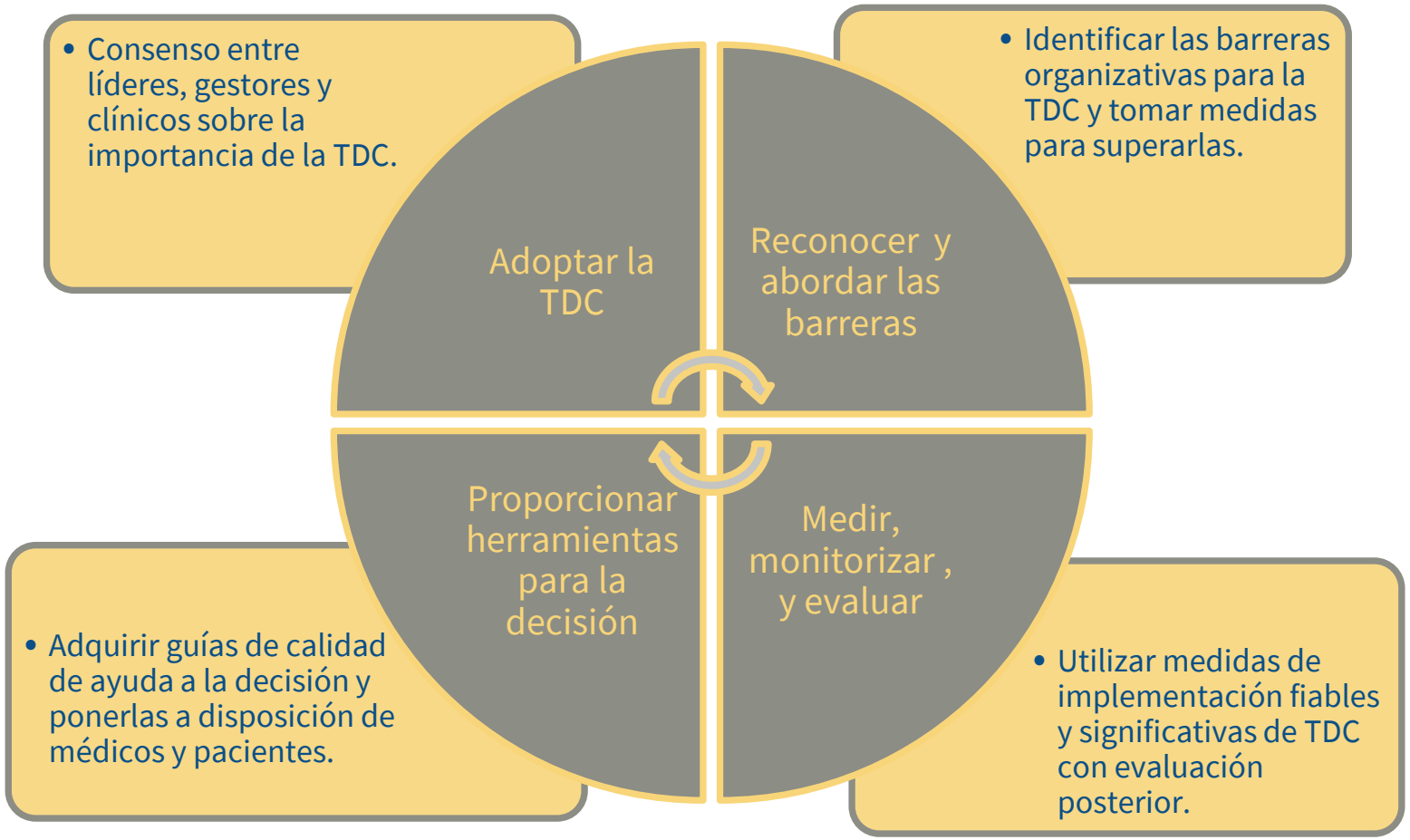
Hargraves I et al. HealthAffairs 2015, 35:4

La toma de decisiones compartida es una expresión humana de la atención solidaria y cuidadosa del paciente.

Victor Montori

Estrategias para facilitar la TDC

WA Nelson, J J. Donella, G Elwin 2016



Estrategias para favorecer la TDC

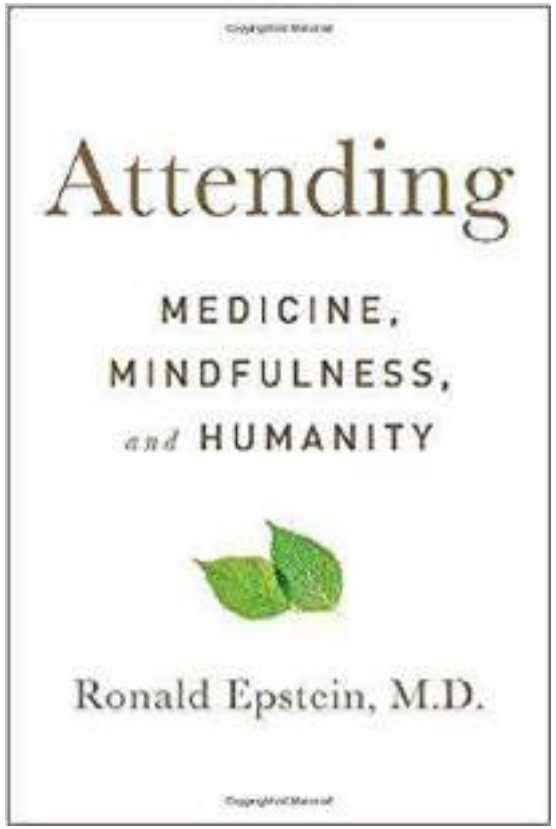
- **Apoyo** institucional (administración, gerencia, dirección y líderes clínicos).
- Proporcionar **recursos** necesarios. Facilitar recursos **on-line**.
- **Formación** con metodología adecuada.
- Favorecer **cambios actitudinales.**
- Elementos de **incentivación** y **despenalización**.
- Formación de **pacientes.**
- **Evaluación** del coste/efectividad.

Retos para el futuro en la TDC

- Clarificar el **papel** de las organizaciones sanitarias.
- Abordar los elementos **actitudinales** y **formativos** de los profesionales.
- Mejorar el **tiempo** de consulta y los **recursos** de la Atención Primaria.
- Facilitar la utilización de recursos ***on line.***
- Apoyar las organizaciones de **pacientes**.
- Facilitar la participación de los profesionales **jóvenes.**
- **Evaluar** la capacidad de implementar **modelos de TDC**.
- Evaluar los **resultados** de las intervencions para redefinir la TDC y sus prioridades.

Mindful Practice

Ronald M Epstein. Mindful Practice. *JAMA.* 1999;282(9):833-839



- Práctica Reflexiva
- Cognición compartida
- Sincronización emocional
- Autonomía relacional

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Resumen y conclusiones finales

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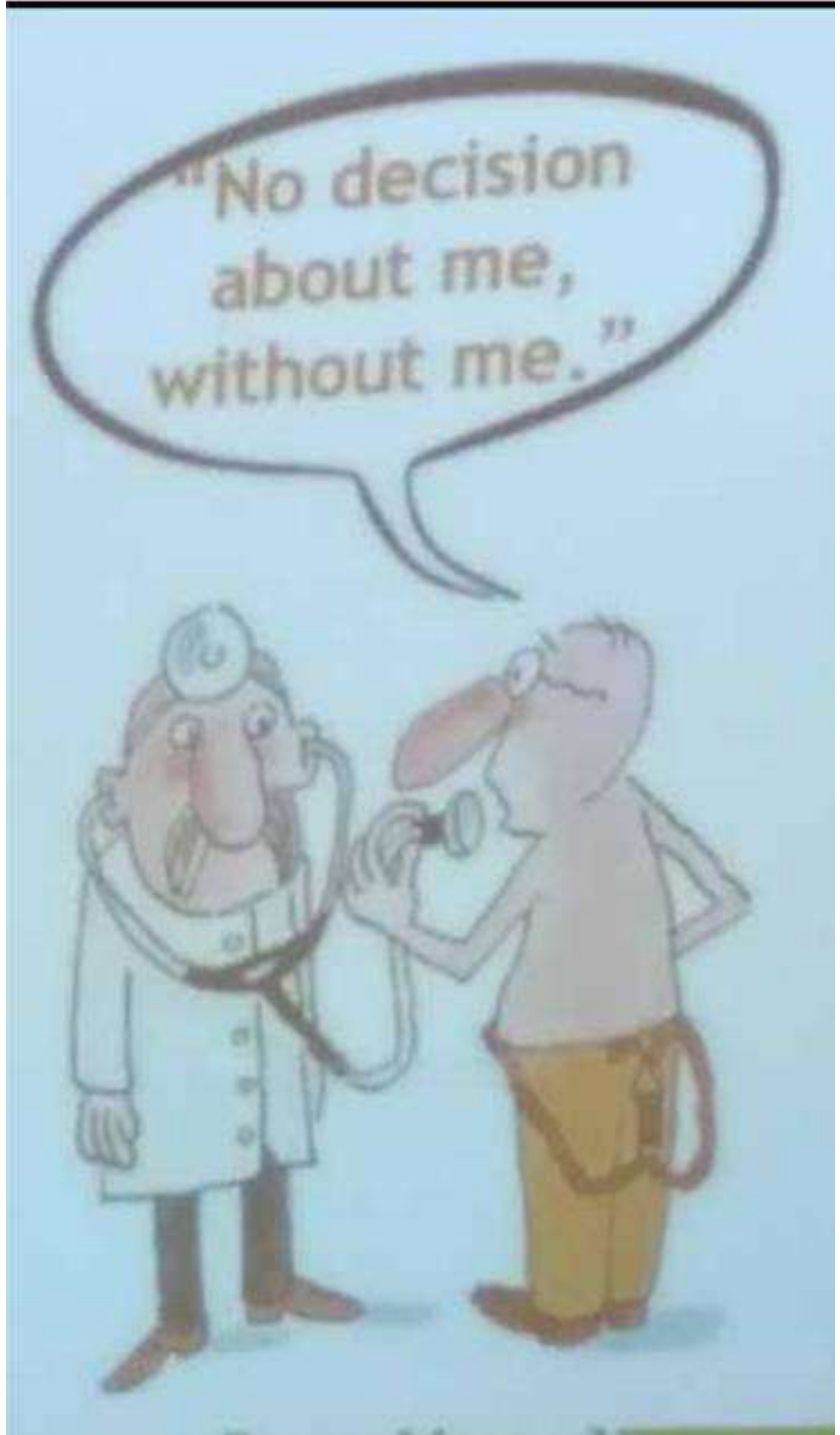

MOLTES GRÀCIES
MOITAS GRAZAS
ESKERRIK ASKO
MUCHAS GRACIAS

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PRACTICE POINTER

Advising patients with existing conditions about fasting during Ramadan

Ammad Mahmood, [1] Sahira Dar, [2] Ammarah Dabhad, [3] Bilal Aksi, [4] Tahseen A Chowdhury[5]

What you need to know

- Identify potential harms (such as from medication incompatibility or expected metabolic changes) that may occur with Ramadan fasting and consider mitigating measures (such as changes to medication or fasting in winter months instead of summer) or abstention from fasting
- Seek specialist input for patients:
  - Taking specialist prescribed medications
  - With reduced life expectancy
  - Undergoing oncological treatment
  - When there is any uncertainty
- Make shared decisions about whether to fast, safe options for administration of medicines, reduction of dehydration risk, and what constitutes adequate nutrition
- If deterioration, disease exacerbation, or delayed recovery occurs during fasting, advise patients to break their fast, take a break from fasting, and seek medical help

Managing chronic conditions during the Islamic month of Ramadan can be challenging, especially as many patients may prioritise fasting over health concerns.[1-3] For example, one epidemiological study of 13 countries with large Muslim populations in Asia, northern Africa, and the Middle East showed increased hypoglycaemic episodes in people with diabetes (types 1 and 2).[1] Also challenging is when Ramadan occurs close to the summer solstice in regions at extremes of latitude (when daylight hours are longer), in both hemispheres.

Pre-Ramadan consultations with patients wishing to fast who have existing conditions—ideally held one to four months before the start of Ramadan—are advocated by the British Islamic Medical Association, the International Diabetes Federation, and the Diabetes and Ramadan Alliance, among others.[2-7]

Healthcare professional opinion is pivotal—with it, Islamic authorities (such as imams and scholars) can offer further advice or assurance to patients about religious exemption from fasting.

What will this article cover?

This article describes which patients might benefit from pre-Ramadan consultations (box 1), what to ask and review during consultations, and suggestions for risk stratification and joint decision making. It is aimed at healthcare professionals including GPs, specialist doctors, specialist nurses, midwives, and pharmacists.

Box 1: Which patients might need or request a pre-Ramadan consultation?

Patients with chronic physical health conditions

Although fasting has been shown to improve fatigue, mood, and quality of life in people with and without chronic health conditions and may play a role in the spiritual care of people with advanced disease, adjustment of drug regimens may be necessary in many conditions including adrenal insufficiency, thyroid disease, diabetes, and cancer.[1 8-13]

Patients with mental health conditions

A systematic review concluded that fasting is safe for most conditions other than schizophrenia and bipolar disorder, where evidence was conflicting as to whether symptoms were improved or worsened by fasting.[14] People with eating disorders might also be at risk from disruption to their usual eating patterns.[15]

Patients who are pregnant

Observational studies of pregnant women suggest that the numbers of pregnant Muslim women who choose to fast for at least some of the month can be up to 90%.[16 17] Factors such as medical history, any pregnancy complication, medication, length of daily fast, and risk of dehydration (such as from hyperemesis gravidarum) can help identify higher risk cases.

A systematic review and meta-analysis suggests that Ramadan fasting does not cause reduced birth weight or increase the risk of preterm delivery, but placental weight is lower in fasting mothers.[18] Evidence is lacking for other outcomes (such as perinatal mortality and longer term development).[18-21]

Patients who are breastfeeding

Clinical evidence is limited. A descriptive cross-sectional questionnaire study suggests up to 90% of breastfeeding patients may fast during Ramadan.[22] A review of observational studies comparing lactation in Yom Kippur/Ninth of Av and Ramadan found electrolyte changes during Ramadan to be "moderate but not clinically relevant" and "almost no changes in macronutrients (lactose, protein, fat, solids, triglycerides, cholesterol)."[23]

People in certain occupations

For example, the risk of hypoglycaemia in diabetes or breakthrough seizures in epilepsy, can be amplified in those who operate heavy machinery or drive in their occupation.[6 24]

For healthcare professionals struggling to tolerate fasting with PPE during the covid pandemic, occupational health specialists in the UK and Saudi Arabia recommend reassignment or, if issues of staffing and patient safety make reassignment unfeasible, termination of fasting with the option to make up fasts at a later date.[25]

The main religious reference used is a textbook of Islamic guidance from the Hanafi school of Islamic jurisprudence (globally, the most practised school

among Sunni Muslims).[26 27] Unless stated otherwise, the religious aspects of this paper are generalisable to the other mainstream branches of Sunni Islam. The clinical concepts discussed can apply to all branches of Sunni and Shia Islam. For further guidance on the religious aspects of Shia Islam, patients and clinicians can refer to Shia authorities.[28]

Box 2 explains the concept of Ramadan fasting and answers other questions about Ramadan.

Box 2: Explanation of Ramadan, according to the main branches of Sunni Islam[26 29]

What is Ramadan and when does it take place?

- Ramadan is the name of the ninth lunar month in the Islamic calendar
- During Ramadan, many Muslims practise fasting ("sawm")—abstention from oral intake during daylight hours—which is one of the five pillars of Islam
- This can involve fasting for up to 30 consecutive days
- In 2022, Ramadan is during most of April and the beginning of May
- Ramadan is based on the lunar cycle and thus shifts through the seasons, shifting back 11 days each calendar year
- In regions at the extremes of latitude, the amount of daylight hours (the number of daily fasting hours) can be up to 20 hours in summer and 10 hours in winter

Why do Muslims fast, especially if there are health concerns?

- Ramadan is a time of heightened spirituality and community cohesion which Muslim patients can be reluctant to miss
- Although Islamic guidance is meant to pre-empt and avoid threats to health, the enthusiasm of individuals to fast and partake in rituals can surpass their concerns about health
- Globally, Muslims observe Ramadan more widely than their other religious commitments

Who does not have to fast in Ramadan?

- Prepubertal children
- Frail and older people for whom there is risk of harm
- Pregnant patients if there is risk to either mother or fetus
- Breastfeeding patients if there is threat to milk supply or infant health
- Menstruating women and women experiencing lochia
- People undertaking long journeys (commonly accepted as journeys >48 miles (77 km) while remaining in one place no longer than 15 days)
- People with illnesses that would be exacerbated by fasting (generally when fasting could either worsen an existing condition to the extent that the person is weak, with reduced levels of physical activity, or is likely to cause deterioration or delayed recovery). This is determined either through prior experience or from healthcare professionals' input
- People with psychiatric illness or cognitive impairment who have difficulty appreciating any risk associated with fasting, and thus lack capacity for the decision

What breaks the fast?

- Eating, drinking, smoking, or sexual activity during daylight hours
- Certain routes for medication (see box 3)

What options are there for people unable to fast during Ramadan?

- Conducting fasts at a later date if or when they are able ("qada")
- Extra prayers and reading of the Quran
- Charity ("fidyah")

Box 3: Summary of differing Sunni Islamic opinion regarding medication routes*[38 39]

- *All agree not allowed*—Oral, rectal, nasogastric†
- *Majority agree not allowed*—Inhaled, intravenous
- *All agree allowed*—Topical, intramuscular, subcutaneous
- *Majority agree allowed*—Eye, ear

*Guidance about more specialist medication administration (such as intraperitoneal administration of antibiotics or insulin for patients on dialysis) is not included

† Nasal and buccal may be allowed if there is no risk of passage into the throat and beyond

What is the evidence?

The advice in this article is based on our collective experience of advising patients during Ramadan and our familiarity with Islamic guidance and practices. We were unable to find any published data on pre-Ramadan consultations or how widely they are carried out in various regions.

There is also little information on the natural course of most conditions in a fasting state. The literature that exists predominantly concerns diabetes,[5 30] but there is also guidance on cardiac disease,[31] epilepsy,[6] kidney disease,[32] adrenal disease,[33] occupational health,[25] and conditions presenting to general practice.[34] Further condition-specific data are emerging and mostly consist of single publications dealing with specific issues, local hospital or health board guidelines, or specialist opinion. Detailing condition-specific criteria is beyond the scope of this article, but we have included clinical examples and condition-specific resources.

What is reviewed during the consultation?

The factors discussed in this section are also summarised in the infographic.

In our experience, consultations three to four months before Ramadan can allow for implementation of changes to lifestyle and medication where required. Consultations closer to Ramadan can still be helpful and may be necessary if there are changes in a patient's health or preferences. Consider annual alerts in clinics or practices to trigger review of patients known to fast who have existing medical conditions. The format and content of each consultation will vary. Below is a summary of what might be covered.

Personal preferences, priorities, concerns, and beliefs

As with all religions, opinion varies about the definitions and understanding of what is compulsory and what is not, and personal motivation to fast may be higher in some than others. There will also be variation in health beliefs,[35] understanding of health issues, appreciation of risks, and knowledge of fasting or fast-breaking strategies.

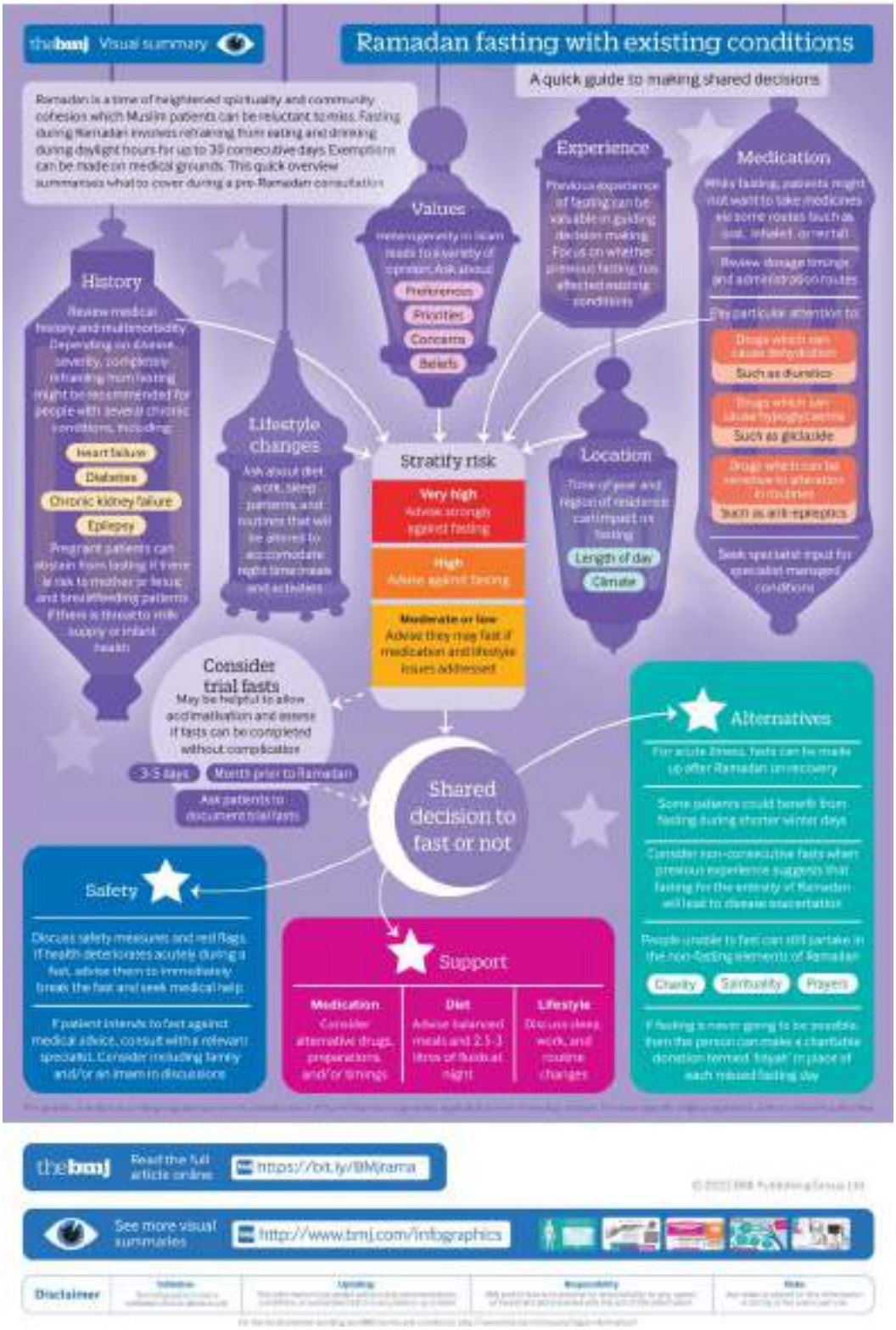
Climate, length of daily fasts, and intended dietary and lifestyle changes during the fasting period

Depending on the time of year and geographic location, the period of night-time food and fluid consumption will range from four to 14 hours. Diet, sleep patterns, and routines are dramatically altered to accommodate night-time meals, social gathering, and late night prayers.[36 37] Disruption of regular sleep patterns, for example, may lead to increased seizures in people with epilepsy.[6]

Dehydration poses a risk in several conditions, particularly when patients are fasting in hot climates or when lengths of fasts are over 20 hours.

Current pregnancy, breastfeeding, and occupation status, and working patterns

See boxes 1 and 2.



Medical history

This allows individualised risk evaluation and consideration of comorbidity (the compound risk with multiple conditions is higher than the risks of individual conditions).

Previous fasting experiences

Patients' experience of fasting with their condition(s) can be the most informative factor. For example, fasting consecutively for an entire month may be known, from previous years, to cause deterioration or additional morbidity; or previous fasting without deterioration or additional morbidity might support a decision to fast or to follow a particular regimen of medication.

When a diagnosis or condition is new since the previous Ramadan, or circumstances have changed, we recommend trial fasts (see box 4).

Box 4: Trial fasts

Benefits

- To evaluate individualised risks, especially if
  - A condition is new since the previous Ramadan
  - Circumstances or condition severity have changed
  - There have been medication changes
  - Medication change may be required during Ramadan
- To assess risk of dehydration and adequacy of nutritional changes
- To allow acclimatisation
- To assess whether fasting causes complications (such as loss of diabetic control, uncontrolled hypertension, breakthrough seizures, etc) and to therefore fine-tune changes to medication or decide that fasting is too high a risk

Advice for conducting trial fasts

- Be adaptable
- Patients might want specific instruction, such as the number of days they should perform trial fasts
  - There is no supporting literature, but in our experience three to five "practice fasts" in the month before Ramadan (when fasting hours are similar) or, in higher risk cases, during shorter winter fasting days, is helpful. These could be consecutive days or, if risk is higher, non-consecutive
- Consider asking patients to document their trial fasts: what they ate, timings, etc
- Patients may be more willing to terminate trial fasts than Ramadan fasts if difficulty occurs

Medication history

- Focus on prescribed medications and timings of doses. Give specific consideration to drugs that can cause dehydration (such as diuretics) or hypoglycaemia (such as gliclazide or insulin) and drugs that can be sensitive to alteration in regimens such as antiepileptics.
- Ask about over-the-counter or complementary medications.
- Consider whether intended dietary changes during Ramadan may affect drug interactions.
- Review administration routes: different branches of Sunni Islam have different thoughts on which routes are permissible during fasting hours (see box 3).[38 39]

How can risk be stratified?

Determine individual risk

We advocate stratifying the risk of deterioration, disease exacerbation, or delayed recovery into three tiers, as per the 2017 guidance from the international DAR-IDF collaboration, which issues advice on fasting for people with diabetes (box 5 and infographic).

Box 5: Stratification of risk of deterioration, disease exacerbation, or delayed recovery during fasting, as per the 2017 guidance from the international DAR-IDF collaboration[2]

Very high risk

Advise strongly against fasting. If patient chooses to fast, seek opinion of a religious authority to discuss religious exemption from fasting

*Examples**

- Advanced heart failure (LVEF <35%, NYHA III-IV)[31]
- Poorly controlled type 1 diabetes or insulin treated type 2 diabetes with no prior experience of fasting[2 5]
- Chronic kidney disease stage 4-5[32]
- Pregnancy with poorly controlled diabetes, blood pressure, or epilepsy[2 6 7]

High risk

Advise against fasting. If patient chooses to fast, advise caution

*Examples**

- Myocardial infarction within the preceding six months[31]
- Well controlled type 1 diabetes or insulin treated type 2 diabetes with prior fasting experience, or type 2 diabetes and pregnancy[2 5]
- Chronic kidney disease stage 3[32]
- Epilepsy requiring treatment regimen incompatible with fasting hours and cannot be safely adapted[6]

Moderate to low risk†

Advise that patients may fast if medication and lifestyle issues addressed

*Examples**

- Hypertension[31]
- Stable angina[31]
- History of stroke or other neurological disability (such as multiple sclerosis) with minor disability[40 41]
- Well controlled epilepsy on a single medication[6]
- Migraine[7]

DAR = Diabetes and Ramadan. IDF = International Diabetes Federation. NYHA = New York Heart Association (NYHA) Functional Classification.

*This is not a full list of conditions. For further resources about specific and more specialist conditions, see box 6.

†The presence of multiple moderate/low risk conditions may prompt a decision to move up a tier during risk stratification.[2]

Box 6: Further resources for specific specialties

- *Adrenal*—Hussain S, Hussain S, Mohammed R, Meeran K, Ghouri N. Fasting with adrenal insufficiency: Practical guidance for healthcare professionals managing patients on steroids during Ramadan. *Clin Endocrinol* 2020;93:87-96.
- *Cardiology*—Akhtar AM, Ghouri N, Chahal CAA, et al. Ramadan fasting: recommendations for patients with cardiovascular disease. *Heart* 2021:heartjnl-2021-319273

- *Diabetes*—IDF-DAR Practical Guidelines 2021. Diabetes and Ramadan. www.daralliance.org/daralliance/idf-dar-practical-guidelines-2021
- *Epilepsy*—Mahmood A, Abbasi HN, Ghouri N, Mohammed R, Leach JP. Managing epilepsy in Ramadan: guidance for healthcare providers and patients. *Epilepsy & Behavior* 2020;111:107117
- *Nutrition and hydration*—British Nutrition Foundation. A healthy Ramadan. https://www.nutrition.org.uk/putting-it-into-practice/food-seasons-and-celebrations/a-healthy-ramadan/
- *Ramadan*— Muslim Council of Britain. #SafeRamadan 2021 guidance. https://mcb.org.uk/resources/ramadan/
- *Renal*—Malik S, Bhanji A, Abuleiss H, et al. Effects of fasting on patients with chronic kidney disease during Ramadan and practical guidance for healthcare professionals. *Clin Kidney J* 2021;14:1524-34
- Various—British Islamic Medical Association. Ramadan compendium. https://britishima.org/ramadan/compendium/

The examples in box 5 are provided only as a guide; consider patients on a case by case basis. Judgment of risk can also be based on the factors summarised in the infographic. The presence of multi-morbidity, for example, may prompt consideration of higher risk than that of each condition in isolation. In 2021 the updated DAR alliance guidelines switched to a points based scoring system,[3] but this has been criticised for not being person-centred and focusing on a binary outcome rather than a more nuanced decision,[42] leading us to remain using and recommending the established three tier system.

Seek specialist advice when there is uncertainty about risk, for patients taking specialist prescribed medications, and for those with shorter life expectancy or undergoing oncological treatment. For example:

- Fetal, maternal, and diabetes specialists who have contributed to and reviewed this article highlighted that maternal hypoglycaemia and ketosis in pregnant patients with type 1 diabetes can harm both mother and fetus, particularly in the presence of hyperemesis and when fasts are >12 hours. Oral intake of fluid and food can avoid this risk. They say that treatment goals for type 2 and gestational diabetes include spacing of meals and reduction of portion sizes, which may be incompatible with Ramadan fasting. They advise that type 1 diabetes in pregnancy is always considered as very high risk and that type 2 and gestational diabetes as moderate to high risk, but potentially very high risk if hyperemesis gravidarum is present.[2 3 7]
- Although chronic kidney disease stage 3 is listed as high risk in box 5, specialist reviewers highlight that, under conditions of little or no proteinuria, well controlled blood pressure, and a stable and well preserved glomerular filtration rate, could be considered as lower risk. It is therefore important that specialist opinion is sought.
- Specialist reviewers highlight that heart failure staging as indicated in box 5 could be considered as lower risk when specialist opinion is sought.

How are shared decisions made?

Bringing together patient opinion and healthcare professional advice (evidence based when possible) increases engagement, comprehension, and understanding of management options and related consequences.[43-45] By stratifying risk into very high, high, and moderate to low, we believe decisions are easier to make.

About lifestyle and work

- For example, advise patients with epilepsy about adequate regular sleep during Ramadan.[6]
- Advise patients to communicate with employers about shift pattern work or risk of dehydration in manual labour, particularly in hot climates or working conditions where temporary reassignment may be required.[46]

About nutrition and hydration

- The British Nutrition Foundation recommends eating balanced meals including wholegrains, fruits and vegetables, dairy foods, and protein-rich foods during non-fasting hours.[47]
- People with eating disorders may require closer monitoring.[15]
- Encourage consumption of 2.5-3 litres of fluids during non-fasting hours: even with longer fasts, avoid taking >3 litres due to fluid overload and hyponatraemia risks.

About medication changes

- Short term medication changes can affect patients' long term health. Always seek specialist input for specialist-managed conditions. In many cases, lower risk drugs (such as analgesia) may be switched without specialist input (such as conversion to patch formulations). Patients can guide healthcare professionals regarding which administration routes they consider acceptable (see box 3).
- Alternative drugs or modified release preparations might be considered when more than one daily dose is required and non-fasting hours are <6-8 hours.
- Without medication adjustments, risk-free fasting may not be possible.
- Medication might be taken before the fast begins (at suhoor) or when the fast ends (at iftar).
- Advise patients to refrain from fasting if they are sensitive to medication changes or if medication is required throughout the day and there is no suitable alternative.
- Advise patients to refrain from fasting if set dose timings cannot be altered, such as high dose (>300 mg total daily dose) levodopa in Parkinson's disease.[48]
- Consider whether altered intake of food during Ramadan may affect drug pharmacodynamics (such as with warfarin, thyroxine, oral bisphosphonates, and certain antibiotics).

Comprehensive, condition-specific recommendations are beyond the scope of this article, but table 1 summarises specialist advice for adjustment of more commonly prescribed medication, and box 5 lists further specialist resources.

About fasting against medical advice

If patients wish to fast despite a high medical risk:

- Discuss condition-specific safety measures and red flags to be aware of
  - Advise to immediately break the fast and seek medical help if health deteriorates acutely
- Offer support with medication, diet, fluid intake, and lifestyle
- Consider specialist consultation

- Document that medical advice was given but patient choice was respected
- Inform other healthcare professional teams involved in the patient's care
- Reassure patients that Islamic guidance permits the termination of fasts for medical reasons (acute and chronic); if doubts remain, patients can consider consulting religious authorities.

About alternatives to fasting

- People may partake in the non-fasting elements of Ramadan, which is also a time of charity, spirituality, and communal prayers.
- If the length of a summer fast is the prohibitive factor, then patients can switch to fasting during winter months[54]
- If disease exacerbation might occur, consider non-consecutive fasts (such as alternate days or a one day break after every two to four fasts).[55]

Case studies

Acute illness

- *Background*—42 year old woman with no prior medical history develops fever and cough and tests positive for covid-19
- *Risk*—Fasting may worsen illness and delay recovery
- *Recommendation*—Stop fasting while she has symptoms. Once recovered, her fasts can be made up after Ramadan
- *Note*—Other common respiratory illnesses may not preclude fasting if they are mild

Managing lifestyle factors

- *Background*—59 year old man with hypertension and stage 2 chronic kidney disease taking ramipril and amlodipine
- *Risk*—Moderate to low
- *Recommendation*—Can fast, but encourage to drink 2.5-3 L of fluids during non-fasting hours. Extra care should be taken if fasts are long or in hot weather

Unable to fast

- *Background*—72 year old man with history of prior myocardial infarction and chronic heart failure (NYHA III) taking aspirin, ramipril, bisoprolol, and furosemide twice daily
- *Risk*—Very high due to medical history and twice daily use of diuretics
- *Recommendation*—Not able to fast now or in the future. Consider fidyah in place of fasting

Summer-winter switching

- *Background*—37 year old woman with well controlled epilepsy taking levetiracetam twice daily is unsuited for switching to an alternative, once daily antiepileptic
- *Risk*—Moderate to low in winter, when twice daily dosing is feasible, but high in summer, when it is not
- *Recommendation*—In summer, consider fasting at another time of year when twice daily dosing is possible

Fasting against advice

- *Background*—35 year old woman with poorly controlled type 1 diabetes and previous diabetic ketoacidosis insists on fasting against medical advice
- *Risk*—Very high, and fasting is not advisable in any setting
- *Recommendation*—Involve an imam or religious scholar who can provide religious counselling. If the woman continues to fast, advise summer-winter switching and appropriate management of insulin for risk mitigation

Multiple comorbidities

- *Background*—61 year old man with obesity, hypertension, stable angina, type 2 diabetes, and gout taking metformin, gliclazide, ramipril, aspirin, simvastatin, bisoprolol, and isosorbide mononitrate
- *Risk*—Although each condition confers a moderate to low risk, the compound risk is elevated to high
- *Recommendation*—Avoid long fasts. Shorter winter fasts may be manageable. Consider a trial of fasting and adjustment of medication

NYHA = New York Heart Association (NYHA) Functional Classification.

Education into practice

- How can you reach shared decisions about safe fasting?
- How can you support patients at high risk from fasting?
- Would you consider discussing Ramadan with imams or other Muslim leaders in your community?

How this article was made

We based our recommendations on the available literature; our experience of advising patients during Ramadan and our familiarity with Islamic practice; specialist input from contributors (endocrinology, diabetes, maternal and fetal medicine, lactation, renal medicine, pharmacology, oncology, psychiatry, Islamic studies); and input from Muslim patients.

How patients were involved in the creation of this article

An author with experience of fasting in Ramadan with a chronic condition, made possible by quick access to medical advice, reviewed all drafts of the article and advised regarding measures patients would find helpful, in particular the approach to pre-Ramadan consultations and possibility of an alerts system for general practitioners and specialist clinics. A patient reviewer gave inputs on use of terminology, diet considerations, advice around breastfeeding, and the usefulness of practice fasting.

Contributors: AM wrote the first draft, produced the graphics, and revised the subsequent drafts. SD, AD, and TAC reviewed the drafts and contributed to the revisions. BA, the patient author, reviewed the drafts and provided feedback on areas that would be useful to patients. All authors contributed to the conceptualisation and design of the article and approved the final draft. TAC is guarantor of the overall content of the article.

A team of contributors was involved in the review of subsequent drafts providing advice on both the clinical and religious aspects of the paper. The contributors were:

• Nazim Ghouri, consultant physician in diabetes, endocrinology and general medicine, Queen Elizabeth University Hospital, Glasgow; and honorary clinical senior lecturer, University of Glasgow

• Zohra Ali, clinical research fellow, medical oncology (Post CCT), Royal Marsden Hospital NHS FT

• Asim Yusuf, consultant psychiatrist, Black Country Partnership NHS Trust; and chair of the British Board of Scholars and Imams

• Rafaqat Rashid, general practitioner; honorary lecturer, University of Leeds; and Islamic scholar (academic director of the Al Balagh Academy)

Competing interests: We have read and understood The BMJ policy on declaration of interests. The BMJ has judged that there are no disqualifying financial ties to commercial companies. The authors declare the following other interests: AM and TAC are editors of the British Islamic Medical Association Ramadan Compendium published in 2021.

Patient consent not required (patient anonymised, dead, or hypothetical).

Provenance and peer review: Commissioned, based on an idea from the author; externally peer reviewed.

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Table 1 | Specialist-led medication adjustment that might be considered during Ramadan for commonly prescribed drugs[2 6 48-53]

Drug	Risks	Possible actions
Anticoagulation[31]	Risk of thrombotic complications if doses missed or altered	*Warfarin*—Continue once daily dosing *DOACs*—Apixaban, rivaroxaban, and dabigatran have twice daily dosing indications; during long fasts consider switching to once daily edoxaban if appropriate
Antihypertensives[31]	Uncontrolled hypertension if doses missed Dehydration and/or hypotension	Advise adequate hydration during eating hours with ACEI, CCB, and β blockers Monitoring urea and electrolytes may be required
Antiplatelets[31]	Risk of stent complications or thrombotic events with missed doses	*Aspirin and clopidogrel* can be continued as normal *Ticagrelor* twice daily dosing may not be possible with long fasts—seek specialist advice about switching to clopidogrel
Oral diabetic medication[3]	Hypoglycaemia if not adjusted Uncontrolled diabetes if missing doses	Remind patients of the importance of diet and self monitoring of glucose. Refer to local Ramadan focused guidance if available *Metformin*—Once daily, take at iftar; twice daily, take at iftar and suhoor; three time daily, morning dose at suhoor, combine two doses at iftar *Insulin secretagogues*—Shorter acting sulfonylureas (such as gliclazide) are safer than longer acting ones (such as glibenclamide); consider switching permanently to drugs with low risk of hypoglycaemia (GLP-1 antagonists, SGLT-2 inhibitors). Once daily, take at iftar (consider reducing dose if diabetes well controlled); twice daily, take normal (or increased) dose at iftar, consider reduced dose at suhoor if well controlled *TZDs, GLP-1 antagonists, DPP-4 inhibitors, SGLT2 inhibitors*—No dose adjustment required
Thyroxine[49]	Poor absorption if ingested with meals leading to hypothyroidism	Take levothyroxine on an empty stomach at bedtime rather than at iftar or suhoor
Antiepileptic drugs[6]	Breakthrough seizures due to missed doses or altered timing Altering regimens can itself cause breakthrough seizures and should be specialist-led	*Once daily drugs (such as phenytoin, perampanel, zonisamide)* can be taken as normal at iftar or suhoor *Twice daily drugs (such as levetiracetam, lamotrigine)* can be taken at iftar and suhoor if >6-8 hours between doses. If not, may require modified release preparations *Three times daily drugs (such as valproate, carbamazepine)* will need to be adjusted to modified release preparations
Parkinson's disease drugs[48]	Exacerbation of symptoms with prolonged off periods during fast	Patients taking low dose levodopa (<300 mg daily) may be suitable for switching to a once daily dopamine agonist or transdermal patch. For doses >300 mg, fasting is not recommended

Always seek specialist opinion before making medication changes in specialist-managed conditions.

DOAC = direct oral anticoagulants; ACEI = angiotensin converting enzyme inhibitors; CCB = calcium channel blockers; TZD = thiazolidinedione; DPP-4 = dipeptidlypeptidase-4; GLP-1 = glucagon-like peptide-1; SGLT-2 = sodium glucose transporter-2.