

SCREENING FOR HAZARDOUS CONSUMPTION

Joan Colom
Lidia Segura
Antoni Gual



Generalitat de Catalunya
Departament de Salut

Is screening for hazardous consumption justified?

- Alcohol is involved in a dose-dependent manner in a great variety of physical and mental pathologies
- Primary care professionals are justified in taking advantage of the opportunity for early detection of hazardous consumption.
- In spite of the fact that many professionals claim to carry out this screening in a systematic way, the percentages of the population screened are low, and in general patients do not recall having been questioned on this matter
- Given that many hazardous drinkers are unknown to their doctors, a systemized approach would be recommendable in order to facilitate their identification.

In which patient groups should screening be carried out?

- A truly preventive strategy implies the implementation of systematic screening.
- If the overload on care services renders this objective impossible, it could be limited to high-risk groups or to specific situations (first visit, work-related disabilities caused by accidents, Monday morning, etc).
- The selection of at-risk drinking groups could be made based on :
 - **epidemiological evidence (for example, middle-aged males)**
 - **vulnerability (for example, pregnant women or adolescents)**

In which patient groups should screening be carried out??

- In any case, the screening of hazardous consumption must be carried out systematically in patients who show signs of disorders that might be related to alcohol, such as: hypertension, cephalgia, dyspepsia, anxiety, depression, irritability, insomnia, attention deficit, sexual dysfunctions, accidents, hepatic illness, cancer, hangovers and poor performance at work.
- Likewise, the screening would be carried out systematically when clinical signs are in evidence such as trembling, spider veins, hepatomegaly, alcohol halitosis or rises in MCV, GGT, ASAT or ALAT.

Which are the best instruments for identifying hazardous consumption?

- Hazardous consumption can be identified by:
- Directly asking questions about consumption
 - Quantity/Frequency Questions
 - Methods of estimating using a diary
- Using questionnaires specifically designed for this purpose.

Quantity/Frequency (Q/F) Questions

- One of the main advantages of Q/F questions is that they are easy to complete, facilitating a quick and efficient screening.
- Their validity and usefulness have been proven and generally speaking the results are more objective when the investigation is restricted to a specific period (a week, a day, etc.)
- Q/F questions tend to describe more habitual behaviours, rather than the average consumption, and there is evidence that those who are interviewed omit to mention periods of abstinence when asked about the last 12 months .

Quantity/Frequency (Q/F) Questions

- Shorter and more recent periods of time are recalled with greater precision, but they may not be indicative of patterns of consumption.
- One of the problems for the validity of Q/F Questions is the within-patient variability of consumption patterns, given that variability is the norm and regularity the exception, especially among patients with a higher consumption.
- In Spain the ISCA has been validated, proving itself to be an instrument with greater sensitivity among men (70%-81% versus 50%-72.7%) and with a high specificity in both sexes (82%-99 in men and 97%-100% in women).

Daily estimation methods

- Methods of daily estimation consume more time and resources and require a greater effort from the patient.
- Retrospective instruments (Timeline Followback; Form 90) give the patient a calendar covering a specific period of time and patients are asked to record the quantities consumed on each of the days monitored.
- They are usually administered by means of interviews, although there are adaptations for the telephone (Form 90-T) and computer (Timeline Followback).
- The validity and reliability of retrospective estimates is well established, and their validity is superior to that of Q/F questions.

Questionnaires for identification or screening

There are several instruments that allow us to identify the hazardous consumer . Among the most well-known, we would mention:

- Alcohol Use Disorders Identification Test (Babor et al 2001)
- AUDIT C (Bush et al 1998),
- Fast Alcohol Screening Test (FAST) (Health D. Ag. 2002),
- CAGE (Mayfield et al 1974),
- TWEAK (Russell et al., 1991),
- brief MAST (Pokorny et al., 1972),
- RAPS (Cherpitel 2000),
- Five-Shot Test (Seppa et al., 1998)
- PAT (Smith et al., 1996).

Alcohol Use Disorders Identification test (AUDIT)

- Developed by the WHO to detect not only hazardous consumption but also alcohol dependence.
- It includes 10 questions that cover the three corresponding ambits: hazardous consumption problems related to alcohol and alcohol dependence.
- Every question has a score from 0 to 4, and the final total permits us to identify, according to the cut-off point, cases of both hazardous consumption and alcohol dependency.

AUDIT

- The original study of the AUDIT showed a sensitivity of 97% and a specificity of 78% for hazardous consumption with a cut-off point of 8 or more.
- In Spain the AUDIT has been translated and validated by several authors, with some variations in the translation of some items and with lower sensitivity in the female population

AUDIT

Authors	Year	N	Cut-off point	Validity
Martínez J.	1996	209	6 (at-risk) 12 (ADS)	S=0.89/ Sp=0.88 S=1/ Sp=0.99
Rubio et al.	1998	326	8 (at-risk) 6 (women) 9 (men) 5 (>60 y.o)	S=0.80/ Sp=0.90 S=0.80/ Sp=0.87 S=0.82/ Sp=0.90 S=0.83/ Sp=0.87
Contel, et al	1998	409	9 (men) 10 (ADS)	S=0.90/ Sp=0.82 S=0.84/ Sp=0.89H S=0.96/ Sp=0.99D
Gómez et al.	2001	500	8 (at-risk)	S=0.89/ Sp=0.93

AUDIT

The AUDIT has been used successfully in various settings:

- Primary healthcare (Volk et al 1997; Rigmaiden et al 1995; Piccinelli et al 1997)
- emergencies (Cherpitel 1995),
- Drug addicts (Skipsey et al 1997),
- unemployed (Clausen & Aasland 1993),
- University students (Fleming et al 1991),
- hospitalized elderly patients (Powell & McInness 1994)
- People with a low level of income (Isaacson et al 1994).

AUDIT

The AUDIT has fulfilled its promise as an international screening instrument :

- It has been studied and validated in a great variety of countries and cultures
- Despite the fact that its validity is lower in women, it can be administered to both sexes .
- In patients over 65 years of age a lower sensitivity and a higher specificity have been found .

AUDIT-C

- Includes the three questions on alcohol consumption from the AUDIT.
- The AUDIT-C proved just as effective as the AUDIT to screen hazardous drinking.
- In the various studies the AUDIT-C has shown a sensitivity of between 54 and 98% and a specificity of between 57 and 93%.

AUDIT-C

- In the Spanish validation study the AUDIT-C was compared with the AUDIT in patients with the diagnosis of hazardous consumption made by primary care physicians.
- The correlations between the results of the AUDIT-C, the AUDIT and the alcohol consumption measured in SDUs were positive and very significant.
- The AUDIT-C and the AUDIT showed similar sensitivities and specificities in the detection of hazardous drinkers.
- For men the best cut-off point was 5 (sens. 92.4%; spec. 74.3%), and among women the best cut-off point was 4 (sens. 90.9% and spec.68.4%).

How should the screening instruments be used?

- Virtually all of the questionnaires can be used in the context of an interview or self-administered.
- Self-administration is quicker, easier, can be done by computer and produces more accurate responses.
- The interview allows ambiguous responses to be clarified, can be used with patients who have reading difficulties and facilitates the transition to brief intervention when necessary.

How should the screening instruments be used?

- In most clinical trials the identification was made by the doctor.
- There is increasing evidence of the important role that nurses must play in the identification of hazardous drinkers.
- It is recommended that all of the primary care team be involved in brief interventions programme.
- In every team the responsibilities assumed by the various professionals are defined according to the specificities of the healthcare system, the healthcare centre and the population attended.

Can biochemical markers be used as screening instruments?

- Biological markers do not detect consumption of 40g to 60g per day.
- There are, at present, no reliable markers to detect excessive alcohol consumption, especially in young patients and with discontinuous alcohol use.
- In primary care settings, questionnaires perform better than biological tests

Conclusions

- Screening is the essential first step in order to be able to identify hazardous drinkers.
- There are significant difficulties for its systematic implementation in PHC centres.
- The validated questionnaires are the instrument of choice for carrying out a systematic screening.
- Q/F questions within the frame of computer programmes are the most widely used model in Spain.