Usefulness of AUDIT-C as screening tool in an opportunistic brief intervention program for alcohol problems in hospitalized patients

Ana Belén Martinez ,Beatriz Rosón, Rosa Hernández, Mar Lázaro, Ferran Bolao,Julio Vallejo y Ramón Pujol.

Internal Medicine, Psychiatry Departments Hospital Universitario de Bellvitge. L'Hospitalet de Llobregat. Barcelona. Spain

Background

- A multidisciplinary opportunistic brief intervention program was initiated in our institution in October 2002 to detect and intervene in alcohol related problems in acutely ill hospitalized patients.

- Initially, the main screening tool used by our team to detect unhealthy alcohol use was the AUDIT-10 with cut-off >8 for men and >6 women.

Background

- Between October 2002 and October 2005 using this protocol we intervened 539 (14%) of the 3785 screened inpatients.

- The detected drinking patterns were distributed in an inverted pyramid: **1/3 were risky drinkers and 2/3 alcohol dependent.**

Screening test or population bias?

- The AUDIT was developed to detect risky drinkers as well as dependence. With a 8 point cut-off has a 97% sensitivity and 78% specificity for detection of risky drinking.

- Bush et al had better results in detecting risky drinkers with AUDIT-C than with the full version in a male population.

Screening test or population bias?

- Other authors (Gordon et al, Miró et al, Gomez et al) have not found significant differences in primary care patients using a cut-off of 5 for men and 4 for women.

- Saitz et al find in a hospital inpatient population that most drinkers of unhealthy amounts had dependence criteria

Objective

To evaluate the performance and the impact in final diagnoses of the use of AUDIT-C as first tool for screening inpatients.

Patients and Methods

- **Setting:** 800-bed University hospital that serves an area of 1 million inhabitants.

- **Wards:** Internal medicine, gastroenterology and psychiatry wards.

- **Design:** case-control

Patients and Methods

- **Controls:** all patients who had been prospectively screened with AUDIT-10 between October 2005 and March 2006

- **Cases :** all patients who were prospectively screened with AUDIT-C between October 2006 and March 2007

Patients and Methods

Assessment:

Controls: AUDIT-10

Cases: AUDIT-C questionnaire. Full AUDIT was taken in patients who scored over the cut-off (>5 ❶ and >4 ❷).

Alcohol use patterns

Controls: according to AUDIT-10 results and clinical assessments.

Cases: according to AUDIT-C, AUDIT-10 and clinical assesment

Alcohol drinking pattern diagnoses

Controls

- Abstainers- AUDIT-10 =0
- Low risk drinking- AUDIT-10 < cut off (8 men and 6 women)
- At risk drinking- AUDIT-10 over cut-off plus no clinical criteria for dependence
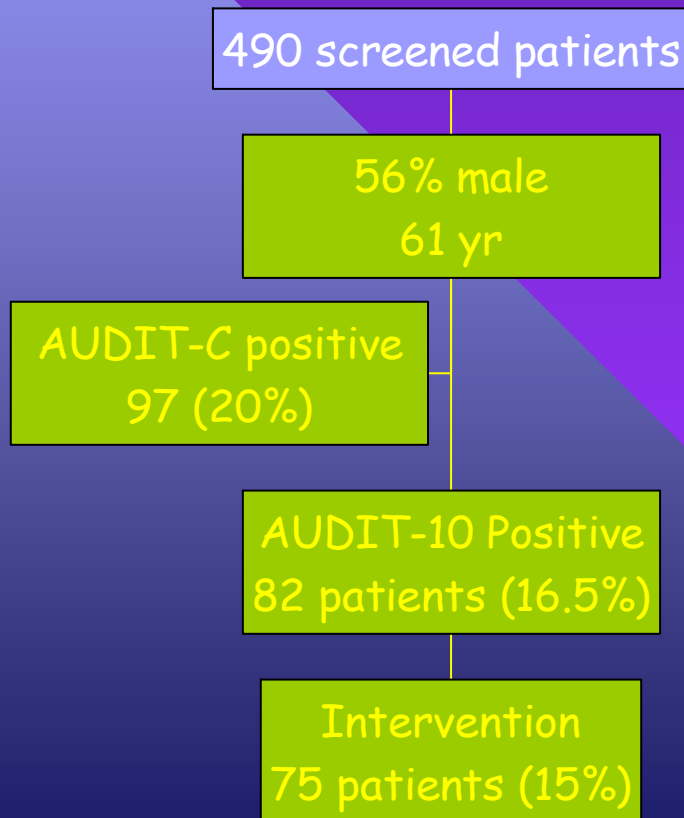- Abuse and dependence- DSM-IV criteria

Cases

- Abstainers- AUDIT-C =0
- Low risk drinking- AUDIT-C > 0 and < cut-off (5 men and 4 women)
- At risk drinking- AUDIT-C > cut-off plus no clinical criteria for dependence
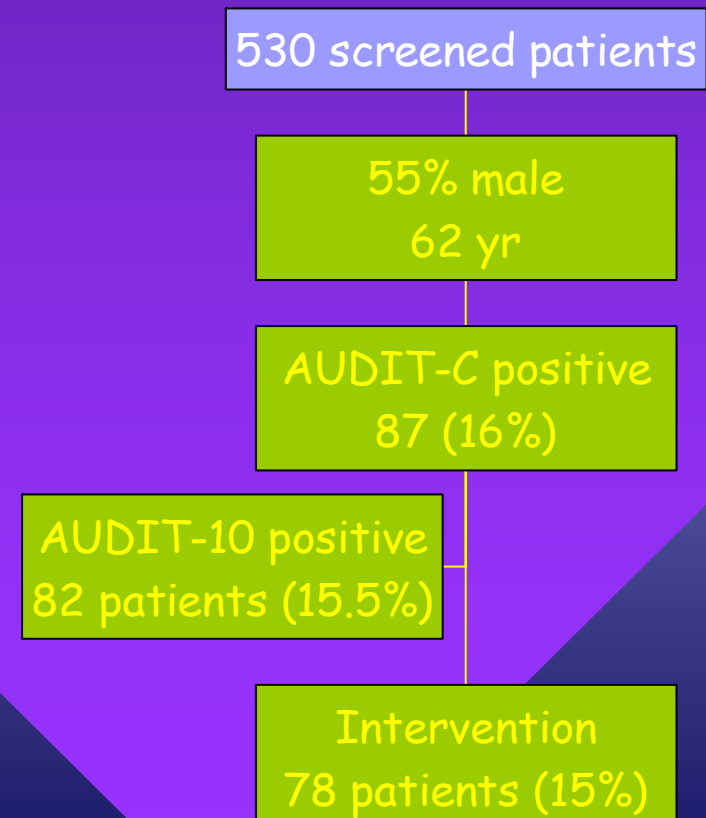- Abuse and dependence- DSM-IV criteria

Patients and Methods

- **Statistical analysis**
  - Chi-square
  - independent samples T-test
  - Level of significance 5%.
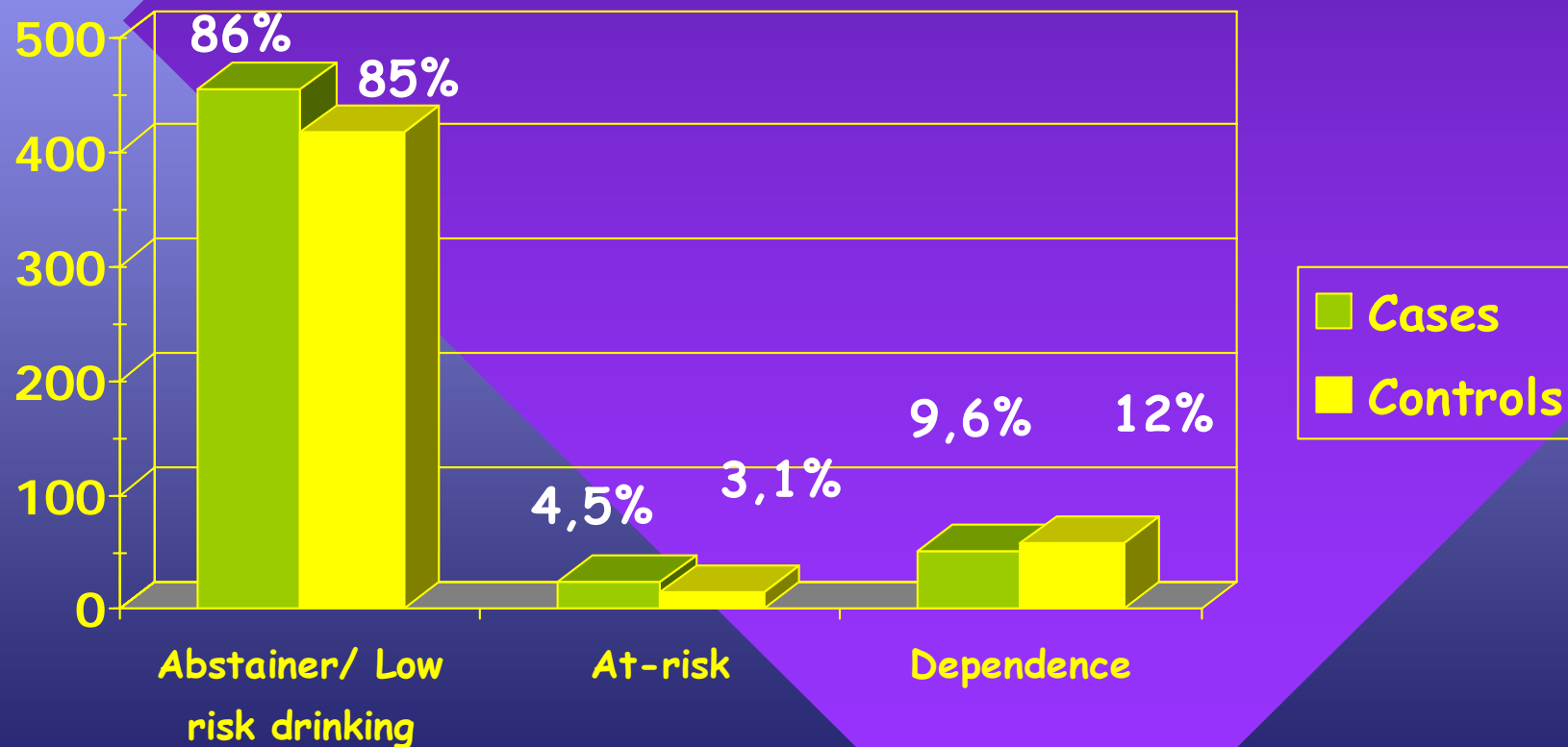
Rate of intervention

Controls

Cases

490 screened patients

530 screened patients

56% male
61 yr

55% male
62 yr

AUDIT-C positive
97 (20%)

AUDIT-C positive
87 (16%)

AUDIT-10 Positive
82 patients (16.5%)

AUDIT-10 positive
82 patients (15.5%)

Intervention
75 patients (15%)

Intervention
78 patients (15%)

No differences were statistically significant

Study drawbacks

- Not randomized

- Groups not coincident in time

Conclusions

√ The use of AUDIT-C as the first step of our brief intervention program did not affect the rate of intervention.

√ It did not increase significantly the detection of risky-drinkers in the evaluated inpatient population.

√ Unusual distribution of drinking patterns might be attributed to population bias rather than to the screening test used.

√ The AUDIT-C was as useful as the full AUDIT when used as a screening tool in an adult inpatient population.