

# POSTAL QUESTIONNAIRE FOR PEOPLE OVER THE AGE OF 74

Please answer the following questions by putting a cross in the relevant box as shown in the following example – this is required so that the computer can read your replies accurately.

Example  YES     NO    Please use BLACK INK



Have you ever had any of the following illnesses (please put a cross in the appropriate box)    **Please complete all questions**

- 1. Heart problems     Yes     No
- 2. Leg Ulcers     Yes     No



Please answer Yes or No to the following questions by putting a cross in the appropriate box:

- 3. Can you get out of the house without help?     Yes     No
- 4. Do you have problems with your memory and get confused?     Yes     No
- 5. Have you been admitted to hospital as an emergency in the last 12 months?     Yes     No
- 6. Overall, would you say your state of health is good?     Yes     No

Thank you for taking time to complete this questionnaire

If you need help with filling in this questionnaire, please ring *<insert name>* or *<insert name>* for assistance *<insert telephone number>*



For office use only:

Practice ID   

Patient's NHS Number   

Patient's Post Code       

Gender        Date of Birth     /  /

Date Form Returned     /  /

# Emergency Admission Risk Likelihood Index (EARLI) Tool

*A validated tool to predict emergency admission in older people*

## Instructions for using the EARLI tool

Start with Score = 10

If the response is 'Yes' change the score as indicated. Any other response, 'No' or 'Don't Know' make no change.

- + 3 ('Yes' for 'Have you ever had heart problems?')
- + 4 ('Yes' for 'Have you ever had leg ulcers?')
- 5 ('Yes' for 'Can you go out of the house without help?')
- + 4 ('Yes' for 'Do you have problems with your memory and get confused?')
- + 8 ('Yes' for 'Have you been admitted to hospital as an emergency in the last 12 months?')
- 4 ('Yes' for 'Would you say the general state of your health is good?')

## Summary outcomes from the validation study of the EARLI tool:

Score	% over-75 population identified	Chance of admission in the following 12 months for this group
20 or more	6%	55%
15 to 20	7.5%	47%
10 to 15	11.5%	30%
Less than 10	75%	17%

For further information on the validation of the EARLI tool see

D Lyon, G A Lancaster, S Taylor, C Dowrick and H Chellaswamy (2007) **Predicting the likelihood of emergency admission to hospital of older people: development and validation of the Emergency Admission Risk Likelihood Index (EARLI)** Family Practice Advance Access published online on January 8, 2007 by Oxford University Press

## Notes on the development and validation of EARLI

For detailed further information, please see:

D Lyon, G A Lancaster, S Taylor, C Dowrick and H Chellaswamy (2007) **Predicting the likelihood of emergency admission to hospital of older people: development and validation of the Emergency Admission Risk Likelihood Index (EARLI)** Family Practice Advance Access published online on January 8, 2007 by Oxford University Press

A postal self completed questionnaire was sent to people aged over 74 years old in Halton PCT. All practices participated and the return rate was an impressive 83%.

The questionnaire consisted of twenty *Yes/No* items with no option of *Don't Know*. There was a mixture of medical and social questions. Over 3,000 positive returns were received. There then followed a period of waiting to observe how many were admitted to hospital as an emergency in the following 12 months.

A statistical regression analysis was carried out to identify the factors associated with an increased chance of admission. A weighted score was given to each item.

Six factors were identified:

1. Do you have any heart problems?
2. Do you have leg ulcers?
3. Can you get out of the house without any help?
4. Do you have memory problems interfering with your life?
5. Have you been admitted to hospital as an emergency in the last 12 months?
6. Is the state of your health good?

The answer 'No' to questions 3 and 6 and the answer 'Yes' to the other questions were associated with an increased risk of hospital admission.

A simple calculation will give each individual a score.

Score = 10 + 3 (Yes for heart problems) + 4 (Yes for leg ulcers) – 5 (Yes for being able to get out of the house without help) + 4 (Yes for memory problems) + 8 (Yes for emergency admission in previous 12 months) – 4 (Yes for state of health being good)

The higher an individual scores the more likely they are to be admitted in the following 12 months. A score of 20 or more includes 5.99% of the population and 55% of them will be admitted. A score of 15 or more includes 13.5% of the population and 50% of them will be admitted. A score of less than 15 was associated with an admission rate of 19%.

The tool was designed as a postal questionnaire but could easily be used by clinicians during consultations to identify people at high risk. An Excel form of the questionnaire is available to calculate individuals' scores. There are a number of 'case management' programmes in the UK, none of which use an evidence-based method of case finding. This tool is ideal for the purpose and will enable health care providers to target their scarce resources more usefully.

**Dr. David Lyon**  
**July 2004**