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## Original Article

# The 'general check-up' in the asymptomatic adult—a study of GPs in the North West of Ireland

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### KEY MESSAGE:

- The AGCU comprised over 6% of reported consultations among respondent Irish GPs.
- Irish GPs differ in their approaches to the AGCU consultation.
- Irish GPs expressed frustrations about the asymptomatic general check-up (AGCU), though over 60% of GP respondents still think that the AGCU has clinical benefit.

### ABSTRACT

**Background:** The asymptomatic general check-up (AGCU) is a common consultation in primary care. Detractors of the AGCU cite a lack of evidence and the harm of over-investigation. Proponents cite the opportunity for the GP to engage in health promotion and explore hidden concerns of the patient.

**Objectives:** To research Irish GP experiences with the AGCU, including their approach to the consultation and to assess their attitudes towards the AGCU.

**Methods:** In 2013, a cross-sectional postal-survey of 136 GPs in the Northwest of Ireland was performed. This was a mixed-method study which underwent both quantitative and qualitative analysis.

**Results:** The response rate was 79/136 (57%). Over 6% of reported consultations were for an AGCU. Large differences existed amongst GPs in their approach to the AGCU. Cardiovascular risk assessment and blood investigations were deemed the most important. GPs had concerns about the AGCU relating to patients being falsely reassured, about the workload and over-diagnosis. Still, 63% of responding GPs felt that the AGCU was clinically useful. Seventy per cent did not agree with private companies offering an AGCU.

**Conclusion:** Despite the lack of evidence for its use and frustrations expressed by GPs, the AGCU is a frequent consultation. GPs took very different approaches to the consultation when a patient presented for a check-up. Most responding GPs think it can have some clinical benefit. There is a need for GPs to appropriately challenge mistaken health beliefs pertaining to the AGCU.

**Keywords:** General check-up, asymptomatic, GP, general practitioner, opinion

### INTRODUCTION

Patients may attend their GP wishing to receive a 'health check,' to screen for a variety of clinical conditions before they clinically manifest. Such health checks are to be made available to 40–74-years-olds at five-year intervals in England, though professional bodies in the UK do not endorse them (1). With the exception of guidance from the Royal Australian College of General Practitioners (RACGP) there remains little evidence-based guidance for doctors (2).

The limitations of screening low-risk, asymptomatic persons, have been known for some time (3). It has been argued that the asymptomatic general check-up (AGCU) lacks clinical benefit and contributes to over-diagnosis (3). Nevertheless the AGCU persists, particularly within private health care facilities. Proponents of the AGCU cite opportunities for the GP to explore hidden concerns and fears—a recent article countered the systematic review by Krogsboll et al., stating there was benefit in a primary care-based AGCU (3,4).

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Little is known about the AGCU in clinical practice. We wanted to research Irish GPs, to discover what they did during the AGCU consultation, what their opinions were about specific aspects of the AGCU and its usefulness and if there were differences between GP-provided AGCUs and private non-GP-clinic AGCUs. Ultimately, we hoped our research questions could shed light on why a practice of questionable value persists in primary care.

## METHODS

We performed a cross-sectional postal-survey of 136 GPs in the northwest of Ireland in 2013. A questionnaire was sent to all the GPs holding a general medical services contract within a specific administrative primary care zone. The survey was confidential and anonymous. This was a mixed-method study, which underwent both quantitative and qualitative analysis. Ethical approval was obtained from the Sligo Regional Hospital Research Ethics Committee.

The questionnaire was developed by the authors, modified by the training programme supervisors and then piloted on 5 GPs, before the final survey design was established. The questionnaire was three pages long with 12 questions (web only).

- We asked respondents; 'What in your opinion are the most important aspects of an asymptomatic "general check-up", if a patient came to you requesting this?' Respondents could list up to five items in an open text box.
- Based upon the RACGP Red Book we assessed GPs' perceived importance of specific aspects of the history, examination and possible investigations in the AGCU, using a table with a Likert-scale (2).

Quantitative data was analysed using SPSS (Version 20 for Mac). Weighted averages were used for mean age of the respondents and the frequency of the AGCU consultation. Categorical variables were analysed using the chi-squared test and the Fisher's exact test if the numbers in the contingency tables were small.

The responses from two open text boxes were documented and summated by the co-authors. The 20 items considered as most important aspects of the AGCU were listed in table format from most frequent to the least frequent (Table 1). The responses in the 'general comments' open text box were assessed by two authors who carried out thematic analysis. Quotations are shown in Box 1.

## RESULTS

### Respondents

The response rate was 79/136 (57%), of whom 50 (63%) were male. The weighted-mean age of respondents was

Table 1. The twenty most important aspects of the asymptomatic general check-up (AGCU) as deemed by GPs.

	Percentage of respondents
<i>In order of most importance, the items which GPs felt should be performed in the AGCU were:</i>	
Blood pressure measurement	66
Bloods:	
'Baseline'	58
Cholesterol	19
HbA1c	18
PSA	11
CV risk bloods	10
Smoking status/cessation	57
Weight or BMI measurement	54
Dietary advice	39
Alcohol advice	38
Exercise advice	37
Family history of diseases	32
Urinalysis investigation	22
Hidden concerns or fears: 'Why now?'	19
Cervical or breast screening attendance (or breast examination)	18
Full systems review (history)	18
Full examination (not specified what)	14
Psychological well-being	10
Cardiovascular examination (auscultation)	5
Chance to meet patient	5
Previous medical history	5
Skin lesions	3
Men's Health issues	2

50 years. Respondent demographics were similar for both the overall population of GPs in the North West of Ireland and the national GP demographic profile (5).

### Reported frequency of the AGCU

Amongst respondent practices, the weighted-mean proportion of reported consultations specifically for an AGCU was 6.3% of all consultations.

### General opinions on the AGCU

- Sixty-one respondents (78%) thought that guidance on what should be performed at an AGCU would help patients; 10% thought it would not and 11% were unsure.
- Fifty-six respondents (72%) thought that more guidance on what should be performed at an AGCU would help doctors; 15% thought it would not and 13% were unsure.
- Fifty-five respondents (70%) did not agree with private companies offering medical screening to asymptomatic individuals; 20% agreed, and 10% was unsure.
- AGCUs were found useful overall by 46 respondents (60%), and not useful by 22%; 18% were unsure.

Box 1. Thematic analysis of GPs' comments on the AGCU (55% of respondents left an open text 'general comment').

## Positive opinions on the AGCU:

- 'It's an important chance in general practice to meet the patient and it's amazing what turns up at asymptomatic screening.'
- 'You only realize the importance once you do it—the yield of significant results is surprising.'
- 'Can be very beneficial depending on the age of the patient. Can lead to appropriate investigations following history and examination. Can improve relationship between patients and doctor and pave the way for discussion and advice on difficult and intimate problems. Can be the springboard for getting the patient to adopt much improved lifestyle measures to enhance general health including exercise.'

## Negative attitudes towards the AGCU

- 'A major concern that it could increase workload which would diminish time for treating ill patients.'
- 'Creating a worried well by the need for a 'check-up'. Where do you stop? e.g. bloods, further investigation, are these part of the 'check-up'. Expectations of patient to out rule everything. '
- 'Very frustrating concept—no evidence showing any benefit for most of what we do in this (except possibly BP and smoking).'
- 'When one is requested my heart sinks, I do not know what the term means, what the patient's expectations are, what potential traps lie in store i.e. danger of reassurance, missed diagnosis.'
- 'Check-ups are largely patient driven secondary to media/public health generated anxiety.'
- 'By and large I find this type of patient on the neurotic end of the scale.'
- 'Patient can have too much faith in the value of the check-up. Private companies abuse the public by offering these 'health' check-ups.'
- 'It disturbs me that prominent insurance companies offer high cost check-ups for free in our private hospitals. This beggars the question 'why?'. These high end check-ups generate mostly useless requests though the GP for further often unnecessary investigations leading to patient anxiety, false positives, false negatives, uncertainties.'

## What should be performed in the AGCU

- 'The most important reason is to understand the reason for the request (i.e. to understand the patient's health beliefs) and to individualize what is done according to the outcoming discussion.'
- 'Why are they attending, any concerns?'
- 'Patients may not fully understand the significance of their symptoms and think they're okay but just decide on a 'general check-up'. Would not do any 'investigations' on the day the patient presents, but get patient to come back for appropriate investigations.'
- 'Should be tailored according to family history, previous issues, lifestyle and previous findings. Need to explain the limitation of check-ups.'
- 'Depends on age and sex of the patient.'
- 'Check-up varies enormously in its pick up according to the age—the older the person the more likely to find something treatable.'
- 'A good practice would be doing a cardiovascular risk assessment would cover 90% of what is required.'

## Resource and financial issues

- 'Need to educate GMS patients this is not a 'free' service.'
- 'A lucrative source for the private hospitals.'
- 'It can generate private income for the practice. GMS/GPVC patients feel it is part of what is covered by their medical card but in fact 'screening' is not covered.'
- 'To be perfectly honest, I only do it because of patient expectation as a business decision, not as valid evidence based medicine.'
- 'A lot of the times it's a charge by the doctor, is a good money spinner by companies ... '

- Forty-two respondents (54%) did not think a practice nurse could perform an AGCU in its entirety, whilst 46% thought nurses could.

### *What GPs considered most important to perform in the AGCU consultation*

The 20 most important items are listed in Table 1. Most GPs stated that the AGCU would vary considerably based upon age and gender. Several GPs also made the comment that investigations would depend according to history, examination and risk assessment.

### *Perceived importance of specific aspects of the AGCU (RACGP red book)*

Of the 12 specific aspects of the history that could be asked in the AGCU, most GPs thought that all were

important or extremely important, in the following order (greatest importance first): smoking history (100% (extremely) important), alcohol history, attendance at screening programmes (if female), exercise, mental health, personal issues, diet history, full systems review, skin/mole history, occupational history, sleep history and lastly sexual history (43% (extremely) important).

Seven out of the eight aspects of physical examination were deemed (extremely) important, in the following order (greatest importance first): blood pressure measurement (99%), body mass index, cardiovascular examination, pulse check, respiratory examination and gastrointestinal examination (48%). A neurological examination was not considered (extremely) important by most GPs in an AGCU.

Regarding investigations, most GPs (89%) thought that urinalysis was (extremely) important in the AGCU. Of 11 blood tests, eight were deemed (extremely)

important by a majority of GPs, in the following order (greatest importance first): glucose/HbA1c screening (73%), cholesterol/lipids, full blood count, urea/electrolytes, liver function tests (51%), PSA test if male (45%), thyroid function tests and lastly ferritin iron studies (34%). Inflammatory markers, vitamin B12 or folate levels were not considered important in the AGCU. GPs were mostly neutral on whether an ECG should be performed. Most GPs thought that spirometry and a chest X-ray should not be done or were not important, though many remained neutral on both (48% and 39%, respectively).

#### *General comments*

Fifty-five per cent of respondents gave a further written response in the 'general comments' open text box. Predominant themes included frustrations felt by GPs, resource constraints, positive aspects arising from the AGCU and items that should be performed in such a consultation. Quotations are shown in Box 1.

#### DISCUSSION

This is the first research to look at the AGCU within the Irish primary care setting. Assessing cardiovascular risk and performing various blood tests would appear to be performed the most by GPs in the AGCU, followed by assessing family history, evaluating hidden concerns and performing urinalysis. Most GPs tended to discuss smoking, nutrition, alcohol and physical exercise, in keeping with the SNAP guidelines of the RACGP (6). Differences exist in what GPs perform and deem important. Despite evidence suggesting no benefit for prostate cancer screening, 43% of GPs thought that a PSA blood test was (extremely) important as part of an AGCU (30% neutral and 17% not important/not be done), a variability similar to US physicians (7,8).

Although most evidence suggests that the AGCU does not benefit patients, it was reported to comprise up to 6% of all practice consultations (3). GPs predominantly voiced frustrations with the AGCU (Box 1) citing examples of patients being falsely reassured, the increase in practice workload and the risk of over-diagnosis. Despite this, over 60% of GPs still felt that the AGCU could be clinically useful. This discrepancy between thinking that the AGCU can be clinically useful on one side and a lack of evidence and GP frustrations on the other is not easily understood from our research.

Although we had a satisfactory response rate, we had a low overall sample size, which was a limitation. A national survey would have better reflected the views of GPs within Ireland. Though piloted and modified, we used a non-validated questionnaire. Arguably, our methodology did not shed light on why a practice

of questionable value persists in primary care. Further research, particularly qualitative structured interviews with GPs and patients, would help explain this.

This research shows that the Irish doctors are more similar to North American than UK GPs. Sixty per cent of US family physicians thought that an annual physical examination was necessary for all persons whereas 22% of UK GPs would support the introduction of the NHS health check (9,10).

Screening, by means of an AGCU, can harm people and increase healthcare utilization (1,3). Globally health care systems must prioritize evidence-based practices. With over 17 million primary care consultations annually in Ireland and a proposed expansion of primary care services, the continuation of AGCUs, and its impact on the volume of work in primary care, needs to be considered.

#### *Conclusion*

Despite a lack of evidence underlying its use and frustrations expressed by GPs, the AGCU persists in clinical practice and most respondents thought the AGCU could have some clinical benefit. GPs need to appropriately challenge mistaken health beliefs pertaining to the AGCU as part of the process of informed consent.

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#### ETHICS

Ethical approval obtained: Sligo REC.

**Declaration of interest:** The authors report no conflicts of interest. The authors alone are responsible for the content and writing of the paper.

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