the month after discharge the risk of suicide is increased over 100-fold. Approximately 2.8% of those presenting after parasuicide will have committed suicide at eight year follow up. For those admitted to hospital the risk might be expected to be higher: 15% of patients admitted to hospital with depression commit suicide.³

The introduction of more complex discharge procedures and the care programme approach have led to a greater concentration on patients who require admission to hospital and suffer severe mental illness. The lack of new resources to implement these time consuming procedures may lead to reduced provision for patients presenting in crisis. The lack of suicides in our cohort, despite important risk factors, illustrates the difficulties for secondary services in effectively targeting those at high risk of suicide. The *Health of the Nation* aims at reducing the rate of suicide by 15% overall and by 33% among people with serious mental illness.⁴ In the absence of meaningful target groups, with limited and redirected resources we run the risk of targeting too specific a group, by default, and failing to meet those aims.

STEFFAN DAVIES
Registrar
ANN BUCKLEY
Registrar
PRAKASH NAIK
Senior registrar
ALAN S LEE
Consultant

Department of Psychiatry,
University Hospital,
Nottingham NG7 2UH

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Guidelines for anticoagulation

EDITOR,—We previously reported an audit of anticoagulant treatment in 100 inpatients with thromboembolic disease.¹ Review of the case notes showed incomplete adherence to hospital guidelines on anticoagulant treatment, suggesting that junior doctors either were unaware of the guide-

lines or found them inaccessible. The guidelines were therefore shortened to 11 important practice points and were pinned to all ward notice boards. The practice points also appeared on the computer screen whenever tests to measure the activated partial thromboplastin time with kaolin and the international normalised ratio to monitor heparin and warfarin treatment, respectively, were ordered through the hospital computer system. For reference, the full guidelines including the practice points were incorporated into the ward information books and sent to all junior doctors.

A second audit, of the case notes of 80 inpatients, detected improvement in the management of anticoagulation for 15 of the 19 standards outlined in the practice points (table). Most changes were small, but significant improvements were recorded in the proportion of patients having an initial coagulation screen, an initial intravenous bolus dose of heparin, a continuous intravenous infusion for heparin treatment, and warfarin on the first day of treatment ($P < 0.05$). In addition, for patients continuing warfarin treatment, therapeutic control was achieved by day 4 for 6 of 62 (10%) patients in the first audit and 15 of 52 (29%) patients in the second audit ($P = 0.02$). Small deteriorations in practice were noted for four standards in the practice points (table), but these differences were not significant. The deterioration in two aspects of management (having at least one measurement of the activated partial thromboplastin time with kaolin daily and having one measure of the activated partial thromboplastin time with kaolin within the therapeutic range daily while receiving heparin) was probably due to a change in the reporting of results of blood tests: during the first audit all reports of test results were filed in the notes whereas in the second audit test results were reported via the computerised system and were not always in the notes.

The more widespread dissemination of the guidelines on anticoagulant treatment probably increased knowledge and awareness of and hence improved adherence to recommended practice. We advise that guidelines should be as short as possible to facilitate this dissemination and suggest the development of practice points. The incorporation of these practice points on to the hospital computer system was probably the most important innovation in this hospital. Computerised reminders about management improve awareness and compliance,^{2,3} and we

recommend that this form of dissemination should be considered elsewhere.

FIONA TAYLOR
Researcher in public health
MARY RAMSAY
Lecturer in public health
ADRIAN RENTON
Senior lecturer in public health
HANNAH COHEN
Consultant in haematology

St Mary's Hospital Medical School,
London NW10 7NS

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Service increment for teaching and research

EDITOR,—Traditionally, most research and education has taken place in hospitals, which was where the service increment for teaching and research was allocated. But the shift to services based in the community requires harmonisation of the new service patterns, education, and research.

At a meeting of the community health services (trusts) operating around London medical schools we learnt how little coordinated strategic activity has taken place. Despite huge investments in education and training only a tiny proportion is spent in primary and community care. We met to exchange information and learn about changes in the undergraduate medical curriculum. From the discussions two important points emerged.

Firstly, current allocations of the service increment for teaching to community health services organisations are hard fought and arbitrary. Several of the organisations do not receive any allocation at all, even though they are all currently delivering many services that could extend students' clinical experiences in hospital. These include consultant led services for children, older people, and mentally ill people and midwife led maternity services. No trusts have successfully bid for the service increment for teaching if they did not have it when they were initially set up, despite huge changes in the delivery of services. The

Results of audit of anticoagulant treatment before and after introduction of shortened, computerised guidelines

Practice point	Aspect audited	No (%) of patients		
		First audit (n=100)	Second audit (n=80)	% Change (95% confidence interval)
Perform objective test for diagnosis, but do not delay start of anticoagulant treatment	Ultrasound scanning or venography performed for suspected deep vein thrombosis	37/40 (93)	37/80 (97)	5 (-5 to 14)
	Chest radiography and perfusion scanning or ventilation scanning, or both performed for suspected pulmonary embolism	37/47 (79)	16/20 (80)	1 (-20 to 22)
Before starting treatment, perform baseline investigations	Result of coagulation screen recorded	52/100 (52)	59/80 (74)	22 (8 to 36)
	Platelet count recorded	95/100 (95)	77/80 (96)	1 (-5 to 7)
	Urea and electrolytes concentrations recorded	87/100 (87)	72/80 (90)	3 (-5 to 7)
	Results of liver function tests recorded	70/100 (70)	49/80 (61)	-9 (-22 to 5)
Note risk factors to anticoagulation	Drug history documented	69/100 (69)	64/80 (80)	11 (-2 to 24)
Start heparin with intravenous bolus dose; continue with continuous intravenous infusion	Bolus intravenous heparin prescribed	29/100 (29)	38/80 (48)	19 (4 to 33)
	Intravenous infusion of heparin given	91/100 (91)	79/80 (99)	8 (2 to 14)
Obtain first measurement of APTT four to six hours after first giving heparin and then daily	APTT recorded within 16 hours of start of heparin*	44/100 (44)	42/80 (52)	9 (-6 to 23)
	APTT documented for each day of heparin treatment	28/100 (28)	17/80 (21)	-8 (-19 to 9)
	APTT within therapeutic range documented for each day of heparin treatment	8/100 (8)	3/80 (4)	-3 (-10 to 4)
	Warfarin prescribed on first day	31/62 (50)	36/52 (69)	19 (1 to 40)
Overlap heparin and warfarin by 72 hours. Stop heparin when international normalised ratio is > 2.0	Both heparin and warfarin prescribed for 3 days	60/62 (95)	46/52 (88)	8 (-1 to 18)
	International normalised ratio within therapeutic range recorded on day heparin stopped	19/62 (31)	14/52 (27)	-4 (-20 to 13)
Measure international normalised ratio daily and at discharge	International normalised ratio within therapeutic range recorded on day of discharge	19/62 (31)	14/52 (27)	-4 (-20 to 13)
	42/62 (68)	42/52 (81)	13 (-3 to 20)	
Test for haematuria	One or more samples of urine analysed	19/62 (31)	21/52 (40)	9 (-8 to 27)
Book appointment at anticoagulant clinic	Clinic appointment documented	47/62 (76)	45/52 (86)	11 (-3 to 25)
Arrange interim check if more than four days to clinic appointment	Interim check arranged	6/26 (23)	6/23 (26)	3 (-21 to 27)

APTT = Activated partial thromboplastin time with kaolin.

*Audit was unable to determine adherence to the precise period of 4-6 hours.

service increment still seems to be linked to beds as the unit of currency for medical training. The links between London's health services, medical education, and research implied in the title of Sir Bernard Tomlinson's report¹ are not being systematically reshaped across the city.

Secondly, the potential role of community health services trusts in providing an infrastructure based in the community to support learning and teaching is not well understood by the medical schools. Although talk of students being taught in the community is ubiquitous, this is understood primarily in terms of more teaching in general practice. This misses the additional and important opportunities within community health services trusts for students to learn about specialisms based in the community and innovations on the boundary between primary and secondary care—for example, hospital at home—and to experience many forms of multidisciplinary practice.

The community health services trusts offer a range of services that provide opportunities for both teaching and research. We believe that medical educators need to become more knowledgeable about the potential in these trusts and to form new alliances if appropriate training is to be provided for doctors of the 21st century.

DIANE PLAMPING
Chair

City and East London Family and Community Health Services,
London E13 8HJ

ANGELA TOWLE
Development worker

King's Fund Centre,
London NW1 7NF

1 Tomlinson B. *Report of the inquiry into London's health service, medical education and research*. London: HMSO, 1992.

Equity in health care

Health needs vary among elderly people

EDITOR,—Allocating resources according to the health needs of the population remains one of the central values of the NHS.¹ Ken Judge and Nicholas Mays have reviewed some of the weaknesses associated with the current method of allocation but do not fully explain the fundamental flaw in the use of the age-cost curve.² The reason for using an age factor is that elderly people are widely believed to have greater health needs than younger people, and the underlying assumption is that all elderly people have the same health needs.

To test this hypothesis we examined the relation between the proportion of elderly people (aged over 65) in the population and the proportion of pensioners who were aged over 75 and living alone for the 28 districts in South Thames region, using 1991 census data. Our analysis showed a highly significant inverse relation between the variables (correlation coefficient $r = -0.49$, $r^2 = 0.24$, $P = 0.009$). The figure shows a linear regression line with 95% confidence intervals. This indicates that small elderly populations have

greater health needs than larger ones. We have previously shown that districts with a high proportion of elderly people tend to have low mortality ratios standardised for age³ and low levels of deprivation.⁴

The main factor causing a district's population to contain a high proportion of elderly people is selective migration at retirement, when more affluent people tend to move to coastal areas. In South Thames, for example, over 24% of the populations of the coastal districts of Worthing, Hastings, and Eastbourne are aged 65 and over, compared with around 14% of the populations of the inner city boroughs Wandsworth, Camberwell, and Lambeth. Selective migration means that the districts to which people migrate are likely to have a healthier and more affluent elderly population than the districts from which people migrate. The effect of the age-cost curve in the national resource allocation model is to move a disproportionately large share of the resources with elderly people when they migrate, from deprived to affluent areas. Thus distributing a large proportion of the cake according to age without distinguishing between poor elderly and rich elderly people discriminates against the group that has the greatest need.

E S WILLIAMS
Director of public health

C M SCOTT

Health services research manager

Department of Public Health Medicine,
Croydon Health,
Croydon,
Surrey CR9 2RH

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People with chronic disability are marginalised

EDITOR,—Linda Challis and Melanie Henwood's critique of community care shows clearly the new inequities and perverse incentives created by the 1990 NHS and Community Care Act.¹ As one of many people who called for proper care needs assessment² and the adoption of a social model of care and support for people with chronic disability,³ I am dismayed to see our rhetoric hijacked as a smokescreen for the disenfranchisement of such people from the free care they had under the NHS. We have already seen a huge erosion of continuing care beds in the NHS, even for the most difficult cases of dementia. Day hospitals and respite beds, which form the backbone of support to community care in progressive geriatric and psychogeriatric services, are in danger of following in their wake.

Those of us who work in such services and are aware of clients' needs are marginalised in the new planning process by our presumed vested interest as providers. Unencumbered by our experience and concern, the new joint commissioning teams succumb to the top down imperative to redefine (by virtue of its element of social care) as much as possible of the service provided for chronic illnesses such as dementia as being outside the scope of the NHS and therefore subject to means testing and tendering to the private sector. The insensitivity of health gain and outcome measures in conditions such as dementia compounds our difficulty in stemming this tide and the resulting fragmentation of the network of specialist support and training. Unlike the commissioning teams, we witness the cost and stress to clients and carers, especially those in Challis and Henwood's category of "relatively poor" (the main victims of the changes in value added tax too).

Hills has emphasised the important functions of welfare in redistributing personal income across a lifetime and insuring against risks to personal and family security, such as chronic disability.⁴ This is undermined by the current political delusion that our society (with its widening social inequalities and aging population) can afford to reduce direct taxation. One result is privatisation and cuts by stealth at this already underresourced margin of the NHS, with which managers in the health and social services seem forced to collude.

COLIN GODBER
Consultant in old age psychiatry

Moorgreen Hospital,
Southampton SO3 3JB

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Early management of myocardial infarction

EDITOR,—We appreciate the interest shown in our article on the treatment of suspected myocardial infarction in the community.¹ Alastair D Short and Barbara West report that only 20% of general practitioners gave aspirin to patients suspected of having a myocardial infarction.² This is higher than the figures reported in our study. We do not believe that our results can be explained by the fact that we depended on the recollection of the patients, who were unwell, as we also used information provided by the general practitioners both in telephone calls and in referral letters. We agree that the results of these audit studies are likely to lead to a substantial increase in the use of aspirin for patients with suspected myocardial infarction.

Most of the correspondence about our paper focused on the use of aspirin, but we wish to emphasise the other important finding of our study—namely, pain relief and the benefits of the intravenous route for administering analgesics to patients with suspected myocardial infarction.

H R WYLLIE
Senior house officer
F G DUNN
Consultant cardiologist

Cardiac Department,
Stobhill NHS Trust,
Glasgow G22 3UW

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Health and safety at work

EDITOR,—We share many of the concerns expressed by Andrew Watterson with regard to the dual threats of deregulation and underfunding of the Health and Safety Executive.¹ Although Britain has made important strides in health and safety in the workplace—for example, in the control of substances hazardous to health²—this seems to be changing. For example, work sponsored by the Health and Safety Executive showed that the incidence of occupational respiratory sensitisation was being underestimated.³ The Health and Safety Commission circulated draft proposals in 1992 for an approved code of practice on the control of respiratory sensitisers. Members of the British Occupational Hygiene Society responded positively to this draft, hoping that its implementation would lead to an appreciable reduction in the incidence of occu-

Relation between proportion of elderly people in population and proportion of pensioners aged over 75 and living alone in 28 districts in South Thames region, 1991 (source: common dataset)