BMJ 2016;354:i4803 doi: 10.1136/bmj.i4803 (Published 23 September 2016)

ANALYSIS

Rethinking primary care's gatekeeper role

Geva Greenfield and colleagues ask whether it is time to reconsider the role of the GP as gatekeeper to specialist services, and call for more evidence to guide future policy

Geva Greenfield *research fellow in public health*, Kimberley Foley *research support officer*, Azeem Majeed *professor of primary care*

Department of Primary Care and Public Health, School of Public Health, Imperial College London, London, UK

Gatekeeping is the term used to describe the role of primary care physicians or general practitioners (GPs) in authorising access to specialty care, hospital care, and diagnostic tests.[1] Gatekeeping has crucial influences on service utilisation, health outcomes, healthcare costs, and patient satisfaction.

In the UK access to NHS and private specialists is generally possible only after a referral from a GP. Gatekeeping was developed as a response to a shortage of specialists and a desire to control healthcare spending[2] and has been an accepted practice in the UK for over 100 years.[3] The NHS is under considerable pressure to use its resources efficiently, and primary care has helped the NHS to achieve this goal through its gatekeeping function.[4] Yet direct access could help reduce GP workload and facilitate greater patient choice. We look at the pros and cons of gatekeeping, describe gatekeeping policies in various countries, and highlight the need for more evidence to devise policy.

Controversy around gatekeeping

While GPs in the UK are the gatekeepers to most medical services, their role in controlling referrals to specialists is the most controversial aspect of gatekeeping,[2] and there is an ongoing debate about the clinical, economic, and ethical implications of gatekeeping.[1-6] There are valid arguments for and against gatekeeping (table 1⇓).

Ideally, gatekeeping ensures that patients see specialists only for conditions that could not be managed by a GP and are referred to an appropriate specialist, hence saving specialists' time for more complex cases. However, the claim that gatekeeping is an effective cost containment method may be wrong.[24 25] For example, we found no significant differences in the percentage of gross domestic product (GDP) spent on healthcare (χ^2=2.61, P=0.1) in countries with and without gatekeeping (table 2⇓).

Gatekeeping is associated with delayed diagnosis and adverse outcomes.[14-17] In England, 5000-10 000 deaths within five years of cancer diagnosis could be avoided every year if earlier diagnosis and appropriate surgery were provided.[15] European countries with strong gatekeeping have consistently shown a lower rate of survival for cancer,[14] although the effect on diagnosis is inconsistent.[26] The few studies suggest health outcomes and patient quality of life in gatekeeping models might be similar to those in direct access models.[10 11]

Finance and ethics

The gatekeeping function of GPs reflects their conflicting roles as the patient advocate, the system advocate, and, often, part of a commercial business.[27] Financial factors such as competition and incentives might interfere with their duty to act in the patient's best interest and draw GPs to refer patients to specialists less than or more than needed. A recent example is the widespread media coverage of ethically questionable incentive payments to GPs to reduce their specialist referral rates—including for suspected cancer.[28] Patients of GPs who hold budgets for prescribing and elective secondary care were less satisfied with the GP's willingness to refer to a specialist and were concerned that their doctor was more concerned with keeping costs down.[23]

One study found that capitation induces the most referrals to expensive specialty care, yet fundholding (when practices are given a fixed budget from which they pay for primary care, drugs, and non-urgent hospital care) can result in almost as many referrals as capitation when the costs of GP care are high relative to those of specialty care.[29] American specialists' attitudes towards the primary care gatekeeping role were primarily influenced by potential loss of referrals and income; salaried physicians or those paid by capitation, and those working in larger and more organised practices, were more positive.[30] In countries with a fee-for-service model, physicians earn more by treating patients themselves so refer patients to specialists less often,[31] but compulsory gatekeeping might result in excessive quality competition and too much specialisation,[32] drawing GPs to refer patients to specialty care more than needed.

Patient choice and satisfaction

Evidence on the effect of gatekeeping on quality of care and patient or provider satisfaction is inconsistent and limited.[10 11] Policies that limit direct access to specialists, and especially

Correspondence to: G Greenfield g.greenfield@imperial.ac.uk

those that deny patients' requests for referral (eg, for a second opinion), are associated with significantly lower patient satisfaction,[33-35] although not universally.[36] Such dissatisfaction is generally associated with worse outcomes and worse adherence to treatment.[37] Gatekeeping negates the person centred model, patient choice, and shared decision making, which many governments wish to promote, by placing the decision to refer with the GP. But others have claimed that gatekeeping may reduce waiting times to see specialists, hence potentially increasing patient satisfaction.

Inequalities

Increasing provider choice and giving direct access to specialists might intensify inequalities in both the use and quality of care.[18] Indeed, use of private specialist care is higher in countries where GPs have a gatekeeper role.[19] In the UK, out-of-pocket expenditure on health as a percentage of private expenditure on health in the UK is significantly greater than in the US (67.6% *v* 26.4%), making access to private specialists a privilege of the wealthier.[20] About 11% of the UK population has private medical insurance, but it is unclear how many insurance schemes cover consultation with private consultants that enable patients to bypass the NHS system.[38] In France, incentives that promote gatekeeping worsen access to specialists, particularly for poor and uninsured people covered by complementary insurance.[39]

However, evidence from European countries shows that gatekeeping helps reduce healthcare inequalities,[18-22] provides decision making support to disadvantaged groups, and lessens unnecessary specialist use by advantaged groups,[40] who tend to use specialty medicine more often.[18 22]

GP-specialist divide

Although some people claim that gatekeeping increases the flow of information between GPs and specialists,[33] it might also preserve the traditional divide and hinder integrated care. Ideally, integrated care is achieved when GPs and specialists discuss the patient's case directly.

International perspective

The level of gatekeeping is a health system decision and varies widely between countries. It ranges from free access to specialists, a need to obtain a referral from a GP to access a specialist (such as in Australia[41]), or an option to skip the GP by paying privately for a specialist[19-42] (table 2⇓). In the US, gatekeeping in access to specialists has been common for many years,[43] and the Affordable Care Act introduced in 2010 did not change any gatekeeping policies.[44] Yet the American health insurance market is complex, comprising many health maintenance organisations and private health insurance companies with different policies. Overall, American physicians had negative perceptions about the effect of managed care on access to specialists and were more satisfied with their ability to refer their fee-for-service patients than the more restricted options available for patients covered by health maintenance organisations.[45]

In France, the 2005 health financing reform law introduced a voluntary gatekeeping scheme termed "the preferred doctor," aiming at regulating access to outpatient specialist care and providing patients with financial incentives to see their preferred GP first rather than consult a specialist directly.[39-47] Although the scheme has shown disappointing short terms results,[39] it may have contributed to the reduction in the health system deficit.[47] Constraints on access to specialists were offset by rises in their fees.[39] In the Netherlands, a recent study showed that, although GPs think that patients receive too much care, they practise a "demand-satisfying" attitude and therefore suboptimally fulfil the gatekeeper role.[48]

How much gatekeeping do we need?

How can we facilitate patient choice and yet run a sustainable NHS? Do we want a health system cluttered by so many barriers and delays that it feels unhelpful to its users? Nigel Hawkes imagined the NHS as a medieval castle, well designed to defend against "unwelcome intruders."[49] And yet, can the NHS (like other public and private systems), in an era of financial austerity, afford to open the "gates"? Can it afford not to, considering the potential costs from delayed diagnoses or suboptimal treatment?

Finding the right balance is not easy. A good gatekeeping policy is one that balances clinical needs, patient choice, and system constraints. The NHS is at one extreme in terms of gatekeeping in health systems. Policy makers may worry that relaxing gatekeeping will result in a flood of patients knocking on specialists' doors. Yet this might be more of a worry than a reality: in a capitated, large multispecialty American group practice, the average number of visits to GPs decreased after elimination of a gatekeeping system but the average number of visits to specialists did not change,[50 51] although visits to specialists by children with chronic conditions increased.[50]

Relinquishing the gatekeeper role for specific patient groups, such as children and people with eye disorders or musculoskeletal problems, may alleviate some of the burden GPs face. In certain cases, it could be cheaper to allow easier access to specialists or other healthcare professionals, as well as providing clinical benefits. For example, self referral for people with musculoskeletal problems has been shown to cut waiting times and costs, increase patient satisfaction, and reduce long term pain and disability.[52-56] Some clinical commissioning groups already offer direct access to some specialist services (box), but there is considerable variation across England.

Plea for evidence

Lack of data makes it hard to decide on how best to implement gatekeeping. International evidence on the effects of GP gatekeeping is inconsistent or limited by the low internal validity. It is also mostly from the US[10-40] and hence has limited applicability to other health systems, particularly those in Europe which generally have stronger social protection than the US.

In the UK, much of the data on the effect of gatekeeping on cancer survival were obtained before the two week referral targets were instituted in the English NHS, and we need comparable studies conducted after these pathways were introduced. There are estimations of GP referral behaviour under common payment schemes (capitation and fee for service),[29] but not of the effect of full or selective relaxation of gatekeeping. In England, for example, there has been little evaluation of the direct access schemes offered by some clinical commissioning groups, other than for physiotherapy.[57 58]

To devise policy, we need evidence on health outcomes, clinical effectiveness, cost effectiveness, health related quality of life, quality of care, use of care, NHS workload, and views of patients, clinicians, and policy makers. Careful evaluation of pilots implementing gradual relaxation of gatekeeping for specific specialist areas in UK primary care is needed. Different forms of gatekeeping, such as incentives and copayment, should be evaluated. We need to know whether easier access to specialists inevitably means greater health expenditure. We also

Clinical areas for which some clinical commissioning groups allow direct access

- Paediatrics
- Physiotherapy
- Smoking cessation
- Mental health services
- Antenatal clinics
- Eye disorders
- Termination of pregnancy

need to know the consequences (intended and unintended) of strong gatekeeping. Would the secondary care sector be happy to see less selected and more self referred patients? Does it have the capacity to deal with them? What would be the resultant change in case-mix? What are the system implications of gatekeeping, such as increased use of direct access services? Which patient groups will benefit the most?

Gatekeeping should be a complementary mechanism in a system that implements integrated care, with a softer division between primary and secondary care that enables those who need specialist care to access it quickly. Rather than focusing on the "gate"—who controls it and to what extent—we should switch to focus on more collaborative work between GPs and specialists with patients, as the most important stakeholder, taking ownership of their health. An integrated work environment between GPs and specialists may generate a common sense of purpose.[30]

Gatekeeping policies should be revisited to accommodate the government's aim to modernise the NHS in terms of giving patients more choice and facilitate more collaborative work between GPs and specialists. At the same time, any relaxation of gatekeeping should be carefully evaluated to ensure the clinical and non-clinical benefits outweigh the costs.

Contributors and sources: GG is a research fellow funded by NIHR through the Collaboration for Leadership in Applied Health Research and Care (CLAHRC) for NW London. He drafted the manuscript and is the guarantor. KF helped in drafting the manuscript and the statistical analysis, and revised the manuscript. AM initiated the idea of the manuscript, and revised the manuscript. All authors read and approved the final manuscript. The views expressed are those of the authors and not necessarily those of the NHS, the NIHR, or the Department of Health.

Competing interests: We have read and understood BMJ policy on declaration of interests and have no relevant interests to declare.

Provenance and peer review: Not commissioned; externally peer reviewed.

1 Franks P, Clancy CM, Nutting PA. Gatekeeping revisited—protecting patients from overtreatment. *N Engl J Med* 1992;327:424-9. doi:10.1056/NEJM199208063270613 pmid:1625720.
2 Forrest CB. Primary care in the United States: primary care gatekeeping and referrals: effective filter or failed experiment?*BMJ* 2003;326:692-5. doi:10.1136/bmj.326.7391.692 pmid:12663407.
3 Loudon I. The principle of referral: the gatekeeping role of the GP. *Br J Gen Pract* 2008;58:128-30, discussion 130. doi:10.3399/bjgp08X277113 pmid:18307864.
4 Majeed A. Primary care in England: between a rock and a hard place. *J Ambul Care Manage* 2013;36:126-8. doi:10.1097/JAC.0b013e3182887132 pmid:23448918.
5 Halm EA, Causino N, Blumenthal D. Is gatekeeping better than traditional care? A survey of physicians' attitudes. *JAMA* 1997;278:1677-81. doi:10.1001/jama.1997.03550200053031 pmid:9388087.
6 Hester DM, Schonfeld T, Amoura J. Gatekeeping and personal values: misuses of professional roles. *Am J Bioeth* 2007;7:27-8. doi:10.1080/15265160701347361 pmid:17558986.
7 Anderson GF, Hurst J, Hussey PS, Jee-Hughes M. Health spending and outcomes: trends in OECD countries, 1960-1998. *Health Aff (Millwood)* 2000;19:150-7. doi:10.1377/hlthaff.19.3.150 pmid:10812793.
8 Boerma WG, van der Zee J, Fleming DM. Service profiles of general practitioners in Europe. European GP Task Profile Study. *Br J Gen Pract* 1997;47:481-6.pmid:9302786.
9 Delnoij D, van Merode G, Paulus A, Groenewegen P. Does general practitioner gatekeeping curb health care expenditure?*J Health Serv Res Policy* 2000;5:22-6. doi:10.1177/135581960000500107. pmid:10787583.
10 Zentner A, Velasco Garrido M, Busse R. Macht der Hausarzt als Lotse die Gesundheitsversorgung wirklich besser und billiger? Ein systematischer Review zum Konzept Gatekeeping (in German). *Gesundheitswesen* 2010;72:e38-44. doi:10.1055/s-0029-1234126 pmid:19795341.
11 Velasco Garrido M, Zentner A, Busse R. The effects of gatekeeping: a systematic review of the literature. *Scand J Prim Health Care* 2011;29:28-38. doi:10.3109/02813432.2010.537015 pmid:21192758.
12 Abbasi K. The demise of gatekeeping in primary care. *J R Soc Med* 2014;107:427. doi:10.1177/0141076814557606 pmid:25377733.
13 Mathers N, Hodgkin P. The Gatekeeper and the Wizard: a fairy tale. *BMJ* 1989;298:172-4. doi:10.1136/bmj.298.6667.172 pmid:2493843.
14 Vedsted P, Olesen F. Are the serious problems in cancer survival partly rooted in gatekeeper principles? An ecologic study. *Br J Gen Pract* 2011;61:e508-12. doi:10.3399/bjgp11X588484 pmid:21801563.
15 Richards MA. The size of the prize for earlier diagnosis of cancer in England. *Br J Cancer* 2009;101(Suppl 2):S125-9. doi:10.1038/sj.bjc.6605402 pmid:19956156.
16 Young GP, Lowe RA. Adverse outcomes of managed care gatekeeping. *Acad Emerg Med* 1997;4:1129-36. doi:10.1111/j.1553-2712.1997.tb03695.x pmid:9408428.
17 Abdel-Rahman M, Stockton D, Rachet B, Hakulinen T, Coleman MP. What if cancer survival in Britain were the same as in Europe: how many deaths are avoidable?*Br J Cancer* 2009;101(Suppl 2):S115-24. doi:10.1038/sj.bjc.6605401 pmid:19956155.
18 Reibling N, Wendt C. Regulating patients' access to healthcare services. *Int J Public Private Healthc Manage Econ* 2011;1:1-16. doi:10.4018/ijpphme.2011040101.
19 Bíró A. Copayments, gatekeeping, and the utilization of outpatient public and private care at age 50 and above in Europe. *Health Policy* 2013;111:24-33. doi:10.1016/j.healthpol.2013.03.009 pmid:23601570.
20 World Health Organization. Out-of-pocket expenditure on health as a percentage of private expenditure on health. 2013. http://gamapserver.who.int/gho/interactive_charts/health_financing/atlas.html?indicator=i2
21 Schnitzer S, Balke K, Walter A, Litschel A, Kuhlmey A. [Do gatekeeping programs increase equality of health care in Germany? A comparison of the health care situation of participants and nonparticipants.]*Bundesgesundheitsblatt Gesundheitsforschung Gesundheitsschutz* 2011;54:942-50. doi:10.1007/s00103-011-1317-y pmid:21800242.
22 Van Doorslaer E, Koolman X. Explaining the differences in income-related health inequalities across European countries. *Health Econ* 2004;13:609-28. doi:10.1002/hec.918 pmid:15259042.
23 Dusheiko M, Gravelle H, Yu N, Campbell S. The impact of budgets for gatekeeping physicians on patient satisfaction: evidence from fundholding. *J Health Econ* 2007;26:742-62. doi:10.1016/j.jhealeco.2006.12.003 pmid:17276530.
24 Pati S, Shea S, Rabinowitz D, Carrasquillo O. Does gatekeeping control costs for privately insured children? Findings from the 1996 medical expenditure panel survey. *Pediatrics* 2003;111:456-60. doi:10.1542/peds.111.3.456 pmid:12612221.
25 WHO. Health expenditure per capita, by country, 1995-2013. Global Health Observatory Data Repository (accessed 15 Sep2015). http://apps.who.int/gho/data/view.main.HEALTHEXPCAPGBR?lang=en
26 Brown S, Castelli M, Hunter DJ, et al. How might healthcare systems influence speed of cancer diagnosis: a narrative review. *Soc Sci Med* 2014;116:56-63. doi:10.1016/j.socscimed.2014.06.030 pmid:24980792.
27 Lauridsen S. Administrative gatekeeping—a third way between unrestricted patient advocacy and bedside rationing. *Bioethics* 2009;23:311-20. doi:10.1111/j.1467-8519.2008.00652.x pmid:18410460.
28 Matthews-King A. GPs continue to be offered "questionable" incentives to reduce cancer referrals. *Pulse* 2016 Jan 8. http://www.pulsetoday.co.uk/news/commissioning/commissioning-topics/referrals/gps-continue-to-be-offered-questionable-incentives-to-reduce-cancer-referrals/20030659.fullarticle
29 Allard M, Jelovac I, Léger PT. Treatment and referral decisions under different physician payment mechanisms. *J Health Econ* 2011;30:880-93. doi:10.1016/j.jhealeco.2011.05.016 pmid:21782263.
30 Pena-Dolhun E, Grumbach K, Vranizan K, Osmond D, Bindman AB. Unlocking specialists' attitudes toward primary care gatekeepers. *J Fam Pract* 2001;50:1032-7.pmid:11742603.
31 Godager G, Iversen T, Ma CT. Competition, gatekeeping, and health care access. *J Health Econ* 2015;39:159-70. doi:10.1016/j.jhealeco.2014.11.005 pmid:25544400.
32 Brekke KR, Nuscheler R, Straume OR. Gatekeeping in health care. *J Health Econ* 2007;26:149-70. doi:10.1016/j.jhealeco.2006.04.004 pmid:16890313.
33 Björnsson S, Sigurdsson JA, Svavarsdóttir AE, Gudmundsson GH. [Gatekeeping and referrals from GPs to cardiologists: patients' opinions and registration of information flow.]*Laeknabladid* 2010;96:335-40.pmid:20445220.
34 Kerr EA, Hays RD, Mitchinson A, Lee M, Siu AL. The influence of gatekeeping and utilization review on patient satisfaction. *J Gen Intern Med* 1999;14:287-96. doi:10.1046/j.1525-1497.1999.00336.x pmid:10337038.
35 Greenfield G, Pliskin JS, Feder-Bubis P, Wientroub S, Davidovitch N. Patient-physician relationships in second opinion encounters— the physicians' perspective. *Soc Sci Med* 2012;75:1202-12. doi:10.1016/j.socscimed.2012.05.026 pmid:22749657.
36 Gérvas J, Pérez Fernández M, Starfield BH. Primary care, financing and gatekeeping in western Europe. *Fam Pract* 1994;11:307-17. doi:10.1093/fampra/11.3.307 pmid:7843523.
37 Roter D. *Doctors talking with patients/patients talking with doctors: improving communication in medical visits.* 2nd ed. Praeger, 2006.
38 King's Fund. The UK private health market. 2014. http://www.kingsfund.org.uk/sites/files/kf/media/commission-appendix-uk-private-health-market.pdf

Summary points

GP gatekeeping was designed to control NHS costs but can delay diagnosis

Gatekeeping works against the government aims of shared decision making and integrated care

Direct access to some specialists has been shown to improve outcomes and could reduce GP workload

Evidence on the best way to implement gatekeeping is lacking

Any relaxation of gatekeeping should be carefully evaluated

39 Dourgnon P, Naiditch M. The preferred doctor scheme: a political reading of a French experiment of gate-keeping. *Health Policy* 2010;94:129-34. doi:10.1016/j.healthpol.2009.09.001 pmid:19819580.
40 Reibling N, Wendt C. Gatekeeping and provider choice in OECD healthcare systems. *Curr Sociol* 2012;60:489-505. doi:10.1177/0011392112438333.
41 Hall J. Australian health care—the challenge of reform in a fragmented system. *N Engl J Med* 2015;373:493-7. doi:10.1056/NEJMp1410737 pmid:26244304.
42 Kulu-Glasgow I, Delnoij D, de Bakker D. Self-referral in a gatekeeping system: patients' reasons for skipping the general-practitioner. *Health Policy* 1998;45:221-38. doi:10.1016/S0168-8510(98)00045-1 pmid:10338953.
43 Forrest CB, Glade GB, Starfield B, Baker AE, Kang M, Reid RJ. Gatekeeping and referral of children and adolescents to specialty care. *Pediatrics* 1999;104:28-34. doi:10.1542/peds.104.1.28 pmid:10390256.
44 Blumenthal D, Collins SR. Health care coverage under the Affordable Care Act—a progress report. *N Engl J Med* 2014;371:275-81. doi:10.1056/NEJMhpr1405667 pmid:24988300.
45 Christianson JB, Warrick LH, Wholey DR. Physicians' perceptions of managed care: a review of the literature. *Med Care Res Rev* 2005;62:635-75. doi:10.1177/1077558705281060 pmid:16330819.
46 Com-Ruelle L, Dourgnon P, Paris V. Can physician gate-keeping and patient choice be reconciled in France? Analysis of recent reform. *Eurohealth (Lond)* 2006;12:17-9.
47 Durand-Zaleski I. The health system in France. *Eurohealth (Lond)* 2008;14:3-4.
48 Wammes JJG, Jeurissen PPT, Verhoef LM, Assendelft WJ, Westert GP, Faber MJ. Is the role as gatekeeper still feasible? A survey among Dutch general practitioners. *Fam Pract* 2014;31:538-44. doi:10.1093/fampra/cmu046 pmid:25135953.
49 Hawkes N, Hawkes N. The role of NHS gatekeeping in delayed diagnosis. *BMJ* 2014;348:g2633. doi:10.1136/bmj.g2633 pmid:24742882.
50 Ferris TG, Chang Y, Perrin JM, Blumenthal D, Pearson SD. Effects of removing gatekeeping on specialist utilization by children in a health maintenance organization. *Arch Pediatr Adolesc Med* 2002;156:574-9. doi:10.1001/archpedi.156.6.574 pmid:12038890.
51 Ferris TG, Chang Y, Blumenthal D, Pearson SD. Leaving gatekeeping behind--effects of opening access to specialists for adults in a health maintenance organization. *N Engl J Med* 2001;345:1312-7. doi:10.1056/NEJMsa010097 pmid:11794151.
52 Chartered Society of Physiotherapy. Physiotherapy works: self referral. 2015. www.csp.org.uk/professional-union/practice/your-business/evidence-base/physiotherapy-works/self-referral.
53 Department of Health. Musculoskeletal services framework: a joint responsibility—doing it differently. 2006.http://webarchive.nationalarchives.gov.uk/20130107105354/http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_4138413.
54 Nordeman L, Nilsson B, Möller M, Gunnarsson R. Early access to physical therapy treatment for subacute low back pain in primary health care. *Clin J Pain* 2006;22:505-11.xref-ref-5-1doi:10.1097/01.ajp.0000210696.46250.0d pmid:16788335.
55 Department of Health. Self referral pilots to musculoskeletal physiotherapy and the implications for improving access to other AHP services. 2008. http://webarchive.nationalarchives.gov.uk/20100202100434/http://www.dh.gov.uk/prod_consum_dh/groups/dh_digitalassets/@dh/@en/documents/digitalasset/dh_089515.pdf.
56 xref-ref-7-1 Chartered Society of Physiotherapy. Musculoskeletal physiotherapy: patient self referral. 2012. http://www.csp.org.uk/professional-union/practice/your-business/self-referral
57 Riggare S. Self referral to physiotherapy and other services would empower patients and doctors. *BMJ* 2016;352:h6977. doi:10.1136/bmj.h6977 pmid:26733363.
58 Middleton K. Give patients direct access to physiotherapy. *BMJ* 2016;352:h6844. doi:10.1136/bmj.h6844 pmid:26732983.

Tables

Table 1| Arguments for and against gatekeeping

For	Against
Leads to lower use of health services and lower expenditures[7-11]	Increases costs due to delayed diagnosis. Money saved on access to specialists is spent elsewhere in the system (eg, increased use of emergency departments)[12]
Reduces waiting times to specialists	Hinders patients from seeing a specialist when they sense their case is not resolved by the GP
System cannot sustain everything patients want and needs to have referral mechanisms	Negates the ethos of patient choice, empowerment, and shared decision making
Ensures that specialists see more complex cases, hence building expertise	GPs treat only simple and general cases, which hinders clinical knowledge
Increases patient safety and protects patients from adverse effects of overtreatment[1 13]	May impair clinical outcomes because of delayed diagnosis[14-17]
Reduces inequalities[18-20]	Increases inequalities[18-22]
Referral system increases the flow of information and mutual communication between general practitioners and specialists	Preserves the traditional GP-specialist divide, hindering collaborative working
Strong gatekeeping arrangements do not negate satisfaction with services	Creates conflict in the patient-physician relationship and infringes on patient satisfaction[23]
GPs treat more specialised cases and are exposed to variety of specialised cases	Increases GPs workload
System efficiency and cost containment	Financial considerations may create over-referral or under-referral and GPs may have underlying interests

Table 2| **Comparison of gatekeeping policies in various countries**

Country	GP referral required for specialist?	Outpatient specialist contacts	Total expenditure on health as % of GDP (2013)
Australia	Yes	Fully covered in public hospitals. Copayment when provided outside hospitals	9.4
Austria	No	Mostly free with contracted physicians (€10 (£8; $11) annual payment)	11
Belgium	Incentives*	Copayments of €2.50-€25.50 depending on service type and patient status	11.2
Canada	Yes	Free	10.9
Chile	Yes	Vary between health insurances and chosen coverage. Cost sharing ranges from 10% to 50%	7.7
Czech Republic	No	Copayment of €1.20 per visit	7.2
Denmark	Yes	Free	10.6
Finland	Yes	Copayment of €27.50 per visit to an outpatient specialist in a hospital up to a maximum of €90.30 per outpatient surgical procedure	9.4
France	Incentives*	Copayment of €1 per visit, plus cost sharing of 30% with a GP referral; 70% otherwise	11.7
Germany	No	Free for patients with statutory health insurance and patients with selected contracts	11.3
Ireland	Yes	Visits at outpatient clinics in public hospitals are free for public patients	8.9
Israel	No	Copayment of about ILS25 (£5; €6; $6) once every quarter for unlimited number of visits to the same specialist	7.2
Italy	Yes	Copayment of up to €36 for facilities and services included in the national healthcare entitlements. €10 fixed cost imposed by national legislation	9.1
Japan	No	Coinsurance of 30% of costs	10.3
Netherlands	Yes	No cost sharing once the general deductible is met (€350)	12.9
New Zealand	Yes	No cost sharing	9.7
Norway	Yes	Copayment of Kr307 (£28; €33; $33), with an annual cap	9.6
Poland	Yes	Free	6.7
Portugal	Yes	Copayment of €7.50 per visit (more than 60% of the population exempt from copayment)	9.7
Slovenia	Yes	15% cost sharing	9.2
Spain	Yes	Free	8.9
Switzerland	Incentives*	10% cost sharing after general deductible, with an annual cap	11.5
United Kingdom	Yes	Free	9.1
United States	Varies across coverage schemes	Varies across coverage schemes	17.1

*Incentives were defined as financial incentives for the patient (eg, reduced copayment)

Adapted from: http://www.oecd.org/els/health-systems/organisation-health-care-delivery.htm, http://apps.who.int/gho/data/node.main.75 and http://www.oecd.org/els/health-systems/Coverage-Cost-sharing-and-exemptions.xlsx