IntroductIon
As discussed in the first part of this two-part series, 1 minimally disruptive medicine (MDM) seeks to orient patients’ interactions with healthcare in a way that optimises how healthcare fits with patients’ lives. A central task of MDM involves managing the patients’ workload and their capacity to address it. The Cumulative Complexity Model, 2 a heuristic model outlining this workload-capacity interaction, was created as a response to the situations of people who receive too little or too much care. In this paper, we consider the context created by these two situations, clarify challenges and tensions for MDM, and offer strategies for attaining MDM that comprise a roadmap forward.

context: too little, too much
Under the Cumulative Complexity Model, workload-capacity imbalances create two contrasting scenarios, which are outlined below. Both are entrenched, well characterised, longstanding problems, and both represent mismatches between the work required of patients and the resources or abilities patients have to carry out this work.

Lack of access and unmet need
Many individuals lack full and timely access to needed care. The inability to address this fact is one of the great, persistent failures of healthcare. A vibrant literature has established several sources of inequity, including low socioeconomic status, distrust, discrimination, language barriers, lack of transportation, limited availability of care, and other issues. 3-7 These barriers may act independently or intersect with other factors, such as mental illness, in driving unmet need. 8 Although lack of access is correlated with socioeconomic disadvantage, not all barriers are financial, and simply providing health insurance coverage does not guarantee access. 9

Overmedicalisation
An explosion of knowledge in the last century has created a situation where healthcare is capable of doing far more than is necessary or useful. Consequently, for those who have access, healthcare is in danger of pervading people’s lives from birth 10 through death 11 via overscreening, overdiagnosis, and overtreatment. 12-14 These patterns may be due to broadened definitions of disease, misapplied diagnostic criteria, defensive medicine, blindness to comorbid and social contexts, or inaccurate estimation of harms and benefits by clinicians or patients. 15,16-18 Personalised or precision medicine paradigms, depending on their application, may further this trend by driving additional diagnostic or genomic testing in the search for targeted treatments.
The result is care that is often overly burdensome, needlessly iatrogenic, poorly matched to patients’ preferences and goals, not evidence-based, and costly and wasteful at both a personal and societal level. People become patients too easily, and patients are expected to work hard, be activated and stay engaged, and make room for treatment (if not illness) in their lives. They must satisfy this expectation, even at the expense of the energy and attention they would rather place on meeting their role expectations and pursuing their lives’ hopes and dreams.

**CAN WE FIND ‘JUST RIGHT’? CHALLENGES AND CLARIFICATIONS FOR MINIMALLY DISRUPTIVE MEDICINE**

Both scenarios above reflect enduring problems which are culturally and structurally embedded. In this context, can we find ‘Goldilocks’ medicine and the need to get it ‘just right’? Doing so sounds straightforward, particularly with some existing strategies for access and patient-centredness which overlap with MDM to a degree. However, it is important to identify ongoing challenges for MDM, and to clarify differences between MDM and other strategies and the tensions that may arise. Below, we outline and address five caveats and potential misinterpretations of MDM.

i) **MDM ≠ social cure** MDM is healthcare-based, and will always be limited to what medicine (or medicine plus integrated social services) can do, which is a small part of people’s health. In acknowledgment of this, beyond careful decision-making, care must be delivered accessibly, in a way that best recognises and counteracts the disparities outside of healthcare. Barriers represent a workload and a lack of fit; reducing barriers at the low end of economic inequality is as central to MDM as combating overmedicalisation.

ii) **MDM ≠ rationing** In avoiding excessive, burdensome care, MDM cannot be a plan for simple rationing of care or lowering of costs for their own sake. However; reducing waste via removing unneeded or unwanted care, with the goal of better fit for patients’ lives, is not broadly incompatible with the underlying ethics of equity-based rationing.\(^{19}\) Streamlining and reducing of low-value patient work are necessary to improve the relation between capacity and workload. Within the MDM framework, simple cost reduction and resource savings are potentially counterintuitive; initial costs and expanded scopes of services may be necessary to build a long-term foundation for patient and community capacity.

iii) **MDM ≠ more efficient overmedicalisation** Increasing the efficiency with which patients’ normalise excessive care into more areas of their lives bypasses the root of the problem of overmedicalisation. Put differently, attempting to fit more care with less disruption still fails to question whether ‘more’ actually needs to be done. MDM cannot simply be a way for healthcare to navigate its way into people’s lives with less disruption; it also requires questioning whether something should be done in the first place. This may prove difficult even if clinicians ‘buy in’, since, as noted above, overmedicalisation is a product of both clinician practices and patient demand.

iv) **MDM ≠ evidence-based medicine** Both MDM and evidence-based medicine (EBM) are important, but are not the same thing. Certainly, a comprehensive and compassionate approach to EBM, inclusive of evidence, context, and patient preferences, can empower MDM against unneeded and unwanted care. However, EBM in practice is not immune to problems, including influence by vested interests and a shift from symptom-based disease to risk-based disease.\(^{14}\) Indeed, one component of overmedicalisation is our lack of understanding and inability to communicate to patients the limited directness and quality of evidence for many common interventions and its inappropriate application to the complex lives and comorbidity profiles of individuals; existing guidelines, algorithms, and recommendations often miss the mark in this way.\(^2\) As such, MDM and EBM may be better considered as mutually informative in supporting patient-centeredness.

v) **MDM ≠ patient engagement** Patient engagement has been identified as key to the future of health and healthcare under large-scale reform efforts in the US and UK,\(^{20,21}\) partially based on evidence of better outcomes and lower costs among more-activated patients.\(^{22,23}\) In turn, policies which promote patient engagement may assume that the most complex, high-risk patients must be better activated and take a more prominent role in their health and care.

However, an all-in approach to activating patients ignores the overall toll taken on patients who are already overburdened. From an MDM standpoint, ‘activation’ may increase treatment burden without improved capacity. Using patient engagement or activation as a way to get patients to take on a greater share of the work, without consideration of their capacity to do so, is irresponsible (and likely counterproductive and wasteful). Lessening workload-capacity imbalances for complex patients requires services that facilitate patients’ engagement in self-care, whenever possible, and setting goals that are based on patients’ values and personal definitions of ‘health’.

**A ROADMAP WITH MULTIPLE PATHS**

We can answer the challenges above through multiple strategies for change; these strategies are not mutually exclusive, but do operate on different rates and scales of change.
TABLE 1 Some elements for a minimally disruptive medicine toolkit

<table>
<thead>
<tr>
<th>Remove disruptions in accessing care</th>
<th>Identify what is wanted and needed, and what is not</th>
<th>Provide care and services that have good ‘fit’</th>
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</thead>
<tbody>
<tr>
<td>Times</td>
<td>Structuring care delivery hours and days to best match community and patient needs</td>
<td>An attempt to identify transcendent patient goals for life that can be entered into the medical record and used to orient care</td>
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<tr>
<td>Clinic and service locations</td>
<td>Plans for optimally locating clinics and/or co-locating services in the community</td>
<td>A structured commitment among patients and clinicians to work together to identify the right care and to make the right care happen</td>
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<tr>
<td>Transportation</td>
<td>Bus/rail passes and other options (shuttles, etc.) when possible</td>
<td>Used to incorporate patient values and preferences into management decisions, legitimise partnership, and arrive at feasible care strategies</td>
</tr>
<tr>
<td>Payment</td>
<td>Detailed charity care processes, enrollment protocols, and other plans to address financial barriers</td>
<td>Structured, within-encounter screens used to identify contextual limitations in patient capacity that impact care effectiveness and that may be amenable to support or intervention</td>
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<tr>
<th>Capacity assessments</th>
<th>Workload assessments</th>
<th>Patient-reported outcome tracking</th>
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<tr>
<td>Structured, within-encounter screens used to identify contextual limitations in patient capacity that impact care effectiveness and that may be amenable to support or intervention</td>
<td>Structured, within-encounter screens used to identify the intrusiveness of health on life and to find opportunities for treatment plan augmentation</td>
<td>Systematic, ongoing recording of patient-reported health status, burdens of life and health, and changes in the quality or availability of support</td>
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<th>Capacity coaching</th>
<th>Resource registries</th>
<th>Lean consumption</th>
<th>Medication therapy management</th>
<th>Community navigators</th>
<th>Relational coordination</th>
<th>Choosing Wisely Campaign</th>
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<tr>
<td>Between-clinician encounter interactions that screen for progress in goals and the influence of capacity and workload on health and wellness</td>
<td>Lists of resources within and outside of the health system that have explicit and predefined agreements to provide specific support to specific patients</td>
<td>Healthcare provider-initiated efforts to improve the efficiency of interacting with health care from the patient’s perspective (e.g. by shortening waiting times, streamlining administrative hurdles)</td>
<td>A version of medication therapy management that focuses on optimisation of medication regimens in regards to not only patient need, but also want and fit; best implemented with the power to ‘deprescribe’ low-value and burdensome medications</td>
<td>Individuals that can be used to more intimately connect patients to community resources</td>
<td>Method of organising care based on shared aims and understanding that uses specific analytics to identify within-team relationships that are impeding care effectiveness</td>
<td>Used to promote a practice or system-level culture of parsimonious and patient-centered care and to establish social norms that counteract the bias toward intervention</td>
</tr>
</tbody>
</table>

**Big picture changes**
First, we can change culture and practices on as large a scale as possible in order to introduce MDM paradigmatically. We label these idealistic because, in a sense, they require the most work and most strongly contradict the existing context. Such changes include fostering a new paradigm in ‘quality of care’, with metrics for workload-capacity imbalances, and greater flexibility and space for patient input in creating and following guidelines. Accordingly, we support the call for a patient-centered care model that reflects the patient’s perspective and values.
revolution," and believe it will lead to better fit and less disruption in care. Portents of such a movement already exist. Calls for patients to have better access to their own medical records suggest an interest in upending the existing order. Likewise, patient- and community-initiated groups and studies suggest that patients, or at least those patients with sufficient capacity to act, may be tired of slow and/or tokenistic change.

**Build into existing reform: piggybacking and add-ons**

We propose this second approach in light of the fact that healthcare is in flux under large-scale changes included in the Affordable Care Act in the US, the Health and Social Care Act in England, and other reforms. Such add-ons could be a part of ongoing efforts at implementing accountable care organisations, healthcare homes, and other models of care and payment to ensure workload-capacity balance is a goal of those initiatives. As might be intimated, this requires fewer revolutionary steps, though this approach would still require evidence, stories, and buy-in from standards organisations and expert panels, clinician leaders, politicians, and/or local health system administration. Given that at least some of the reform efforts and evaluations underway are aimed at greater access, coordination, and quality, shaping their implementation toward minimally disruptive practices is possible in the abstract. However, defensive medicine, adherence to existing quality metrics, and other factors will likely complicate such half-measures in the absence of fundamental change.

**Toolkit and modular approaches**

Even if the context above does not change, small-scale changes can be, and are being, made. Existing efforts include targeted, highly coordinated care delivery for complex populations or conditions (e.g. HIV clinics) and medication reconciliations (which can reveal unnecessary medications). An initial toolkit for MDM already exists and its components can be picked up and used with some flexibility within existing payment and delivery models (Table 1, modified from26). Plans for limiting workload could include reducing patients’ administrative burdens (fewer forms, more streamlined visits or payments) or removing barriers (e.g. orienting clinics’ hours of operation to better fit patients’ schedules). Conversely, building and mobilising patients’ capacity could mean supporting caregivers to amplify their efforts, optional training and classes, and other interventions delivered with kind respect to the limitations in the capacity that our patients can mobilise to address healthcare work. Implementing such modules, adapted for each context, is likely to be the most immediate way to introduce MDM.

**CONCLUSION**

In sum, attaining MDM requires meeting challenges which have long bedevilled healthcare. MDM, however, does bring focus to some unique tensions. These include seeking a ‘Goldilocks’ balance, and managing tensions between engaging patients and ensuring their input is informed by a good understanding of evidence, while staying cognisant of their capacity. Regardless, adding to and using an MDM toolkit may be the most feasible way to introduce MDM today, while we also work for larger cultural and structural changes to the existing backdrop of healthcare delivery.

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