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Lauris Christopher Kaldjian

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Lauris Christopher Kaldjian

ABSTRACT
Clinical decision making is a challenging task that requires practical wisdom—the practised ability to help patients choose wisely among available diagnostic and treatment options. But practical wisdom is not a concept one typically hears mentioned in medical training and practice. Instead, emphasis is placed on clinical judgement. The author draws from Aristotle and Aquinas to describe the virtue of practical wisdom and compare it with clinical judgement. From this comparison, the author suggests that a more complete understanding of clinical judgement requires its explicit integration with goals of care and ethical values. Although clinicians may be justified in assuming that goals of care and ethical values are implicit in routine decision making, it remains important for training purposes to encourage habits of clinical judgement that are consciously goal-directed and ethically informed. By connecting clinical judgement to patients’ goals and values, clinical decisions are more likely to stay focused on the particular interests of individual patients. To cultivate wise clinical judgement among trainees, educational efforts should aim at the integration of clinical judgement, communication with patients about goals of care, and ethical reasoning. But ultimately, training in wise clinical judgement will take years of practice in the company of experienced clinicians who are able to demonstrate practical wisdom by example. By helping trainees develop clinical judgement that incorporates patients’ goals of care and ethical reasoning, we may help lessen the risk that ‘clinical judgement’ will merely express ‘the clinician’s judgement.’

PRACTICAL WISDOM: ARISTOTLE, AQUINAS AND CONTEMPORARY MEDICAL ETHICS

According to Aristotle, the virtue of practical wisdom (phronesis) is the ability to identify and use the right means to accomplish good ends, with ‘good’ being defined within an ethics of virtue.1 It is fundamentally about aligning right means with good ends through an accurate perception of what is required in the practical realities of a particular situation.2 As a virtue, practical wisdom is a character trait that is developed through practice.3 Once acquired, it functions as a disposition that motivates and enables a person to make good choices by responding realistically to a problem through clear perception and deliberation concerning a given set of circumstances. Within an ethics of virtue, practical wisdom is directed towards the ultimate end (telos) of human flourishing (that which makes people thrive as human beings). This ultimate telos provides the criterion or compass by which one navigates through a given set of circumstances. The telos in medicine would be the more proximate goal of health.

Aquinas’ virtue of prudence (prudentia) is in large part similar to Aristotle’s phronesis. Prudence enables the virtuous person to make right choices by identifying the right means to achieve good ends through deliberation and planning5 and facilitating the application of general moral principles to specific circumstances.6 Aquinas believed that human flourishing requires living within the world as it actually exists, and prudence is preeminent among the virtues simply because an accurate
engagement with reality is a necessary step in figuring out what, in a given situation, is good for human beings.\textsuperscript{7}

Given the historical significance of Aristotle’s and Aquinas’ ideas, it is not surprising that some contemporary bioethicists reflect their thinking. Pellegrino and Thomasma\textsuperscript{9} draw directly from them for a description of practical wisdom as ‘medicine’s indispensable virtue’ that disposes the physician to ‘attain the truth for the sake of action’ and coordinates the expression of all other virtues in medicine to achieve right and good healing actions for patients. Beauchamp and Childress\textsuperscript{10} advocate the other virtues in medicine to achieve right and good healing makes sense patients and families to discuss whether a given intervention realized, goals allow clinicians, and his or her health-related goals. Goals serve as guiding their mediating relationship between a patient—his or her health-related goals. Goals serve as guiding which disposes the physician to ‘attain the truth for the sake of action’ and coordinates the expression of all other virtues in medicine to achieve right and good healing actions for patients. Beauchamp and Childress\textsuperscript{9} advocate the other virtues in medicine to achieve right and good healing.

CORE ELEMENTS OF PRACTICAL WISDOM

Practical wisdom is a crucial virtue because it allows one to perceive clearly and respond well by engaging concrete circumstances through actions that are aligned with goals worth pursuing. Practical wisdom also depends on other moral virtues and general moral principles to ground the process of deliberation within a larger moral framework. Based on the traditions established by Aristotle and Aquinas, I would suggest that practical wisdom includes the following core elements:

1. Pursuit of worthwhile ends (goals) derived from a concept of human flourishing;
2. Accurate perception of concrete circumstances detailing the specific practical situation at hand;
3. Commitment to moral principles and virtues that provide a general normative framework;
4. Deliberation that integrates ends (goals), concrete circumstances, and moral principles and virtues;
5. Motivation to act in order to achieve the conclusions reached by such deliberation.

These elements pose probing questions in a society and profession marked by moral pluralism. The most significant of these pertain to the idea of human flourishing, given metaphysical controversies about the status of human nature and its fulfilment amidst diverse philosophical and theological beliefs and belief systems.\textsuperscript{10} A second area of concern pertains to the pedagogical challenges of teaching virtues, especially those that bear on morality.\textsuperscript{11} Regarding the first of these concerns, the medical profession is at a certain advantage for being able to circumnavigate philosophical questions about ultimate human ends in its pursuit of more proximate health-related goals, about which there is broad (though not complete) consensus. The substantial degree of consensus surrounding clinical goals in medicine reflects this advantageous position, and the capacity of goals to facilitate reasoning in clinical practice shows how important these proximate health-related ends are for wise clinical decision making.

GOAL-DIRECTED DECISION MAKING IN MEDICINE

Goals are relevant to all of clinical medicine, and their relevance is especially clear in areas such as end-of-life care.\textsuperscript{12} To be meaningful, medical interventions need to be assessed in light of their mediating relationship between a patient’s medical status and his or her health-related goals. Goals serve as guiding objectives and are conditioned by a patient’s diagnosis, prognosis and treatment wishes. Once defined, goals allow clinicians, patients and families to discuss whether a given intervention makes sense—that is, whether an intervention is likely to accomplish specific objectives. Goals thereby provide an individually defined telos that gives meaning and orientation to a contemplated intervention. Without goals, deciding for or against a possible intervention may feel (and possibly be) directionless—like travelling without a destination—and decisions may be dictated more by immediate circumstances and short-term results than by the prognostic implications of underlying realities. The practical need for goal-directed action in clinical medicine may become particularly apparent when ethical questions or disagreements arise.\textsuperscript{13}

GOALS OF MEDICINE FOR POLICY AND GOALS OF CARE FOR PRACTICE

The Hastings Center convened a group of international scholars to identify a set of justifiable ‘goals of medicine’ that should guide health policy.\textsuperscript{14} They were motivated in part by concerns about influences that threaten to blur a proper understanding of what medicine’s goals should be. After 4 years of deliberation, the participants of the Hastings Center project affirmed a list of four goals of medicine that ought to guide health policy:

1. Prevention of disease and injury, and promotion and maintenance of health;
2. Relief of pain and suffering caused by maladies;
3. Care and cure of those with a malady, and care of those who cannot be cured;

It is not my intention to attempt a defence of this list. But I believe these goals are compelling for their concise articulation of the basic ends that have shaped, and by and large continue to guide, Western medicine. This is not to deny the existence of reasoned controversies concerning the best number or specification of such goals, or to neglect the import of philosophical discussions about the meaning of health and disease themselves,\textsuperscript{15} but it is to suggest that grounds for the validity of these four goals should be available.

In addition to goals that articulate overarching ends for health policy, ‘goals of care’ are cited in the medical literature as a means of guiding communication between clinicians, patients and patients’ families about clinical decisions. A structured review of goals of care towards the end of life analysed the content of 116 articles and identified a comprehensive list of six practical goals:\textsuperscript{16}

1. Be cured;
2. Live longer;
3. Improve or maintain function/quality of life/independence;
4. Be comfortable;
5. Achieve life goals;
6. Provide support for family/care giver.

Ranging from cure to comfort, these goals represent a wide scope of possible objectives that can serve as a starting point in discussions to help patients articulate their wishes and guide shared decision making with clinicians. Although drawn from the end-of-life care literature, the generality of these goals makes them applicable to all of medical practice. For some patients, one or more of these goals will capture their desired purposes; in other cases, discussion that begins with these six goals may lead to the identification of other possible objectives.

CHALLENGES ASSOCIATED WITH GOALS

Although highly valuable, goals of care are not without challenges and limitations. The more general the goal, the more interpretation it requires, and when more than one goal
pertains—which is commonly the case—possible conflicts between goals will require resolution or prioritising. The less certain the prognosis, the greater the challenge of deciding on goals (one of which may be the need to ascertain the prognosis). Goals also shift over time as biological realities, and patient preferences evolve over the course of a disease. One of the greatest skills physicians need is the ability to facilitate modulation from one set of goals to another—such as from the ‘full court press’ of interventional therapy to the ‘comfort measures only’ of palliative care. Such skill requires careful monitoring, anticipation of disease trajectories, and honest and compassionate dialogue.

Disagreements about goals may arise between patients, family members and clinicians. For example, a family may prefer that a patient’s life be prolonged by intensive life-supporting means, whereas the physician or nurse believes that continued life support will not advance reasonable goals and will only prolong suffering. Such disagreements remind us that the selection of goals is not only based on biomedical realities and available technology, but also on beliefs about matters as fundamental as the value of prolonging life, the acceptability of suffering, the significance of a given outcome probability, and the financial implications of treatment. As a result, goals may need to be explained or negotiated in the hope that a shared understanding between involved parties will emerge. But even in cases of refractory disagreement, articulation of goals encourages dialogue that may clarify sources of disagreement and lead to creative and mutually satisfactory resolutions amidst lingering differences.

**CLINICAL JUDGEMENT AND PRACTICAL WISDOM: A CLAIM OF SIMILARITY**

Pellegrino and Thomasma\(^{17}\) make a claim related to the central concern of this paper, that clinical judgement *requires* practical wisdom. I would like to take this claim one step further and suggest that a comparison of clinical judgement and practical wisdom implies that clinical judgement, if integrated with goals of care and ethical reasoning, is actually a *form of* practical wisdom within the specific context of medicine. For both involve looking at problems truthfully and then deciding how best to respond on the basis of the ends in view; the means best suited to achieve those ends, and an appreciation of the moral principles and virtues necessary to guide and motivate action. To support this suggestion, we need to define clinical judgement and explore its relationship to ethics and goals.

**CLINICAL JUDGEMENT**

Clinical judgement is the basic skill of the physician that solves a medical problem through data collection, development and testing of explanatory hypotheses, and formulation of recommendations for therapy based on those hypotheses. In more detail, clinical judgement is ‘the totality of the mental processes involved in all stages at which the clinician collects and interprets data; formulates a problem statement, confirms and refutes diagnostic hypotheses; considers, plans, and implements possible diagnostic and therapeutic options, tests, and interventions; and evaluates likelihoods and outcomes.’\(^{18}\) Its components are sometimes viewed as the general process of clinical reasoning by which the physician suspects the cause of a patient’s symptoms and signs, gathers relevant information, selects necessary tests, and then recommends treatment.\(^{19}\) Clinical judgement is generally considered an explicit cognitive process, although some believe it also entails tacit elements, the latter of which are not susceptible to conscious verbal descriptions but are demonstrable through action.\(^{18}\) Amidst its various articulations, we can summarise by saying clinical judgement is an inductive and iterative process of information processing that transforms a host of data (from the history, physical examination and laboratory) into a differential diagnosis (a manageable list of possible hypotheses that may explain a patient’s problem) that is then sifted and further tested in an attempt to identify the most likely explanation for a malady and justify an approach to its treatment.

**CLINICAL JUDGEMENT IN RELATION TO ETHICS**

Some accounts of clinical judgement or reasoning carry modest indication of the ethical values necessary for its execution, presumably because appropriate ethical commitments are taken for granted. This seems to be the case in the sophisticated work of Kassirer and Kopelman.\(^{15}\) They acknowledge that choices about tests and treatments depend on assessments of risks and benefits (as well as the physician’s level of diagnostic confidence), but they do not discuss the underlying ethical values that inform those assessments. By contrast, other writers expressly note the intersection of the ethical and biomedical features of clinical judgement, such as the ethical significance of making a wrong diagnosis\(^{20}\) or the generally value-laden nature of clinical judgement deriving from an ethical dimension beyond practical reasoning.\(^{21}\)

This ethical dimension of clinical judgement is portrayed by Pellegrino\(^{22}\) as its defining feature, because the ethical dimension of medicine (a right and good healing action) gives clinical judgement its direction and purpose. Pellegrino’s dissection of the anatomy of clinical judgement reveals its multiple facets and contrasting modes of reasoning, one of which is ethical reasoning to determine how any and all tests and treatments will serve to advance the interests of a particular patient. Pellegrino’s analysis offers a multifaceted portrait of clinical judgement that requires a genuine engagement between the physician and the patient in order to orient the outcome of all reasoning to the patient’s good. Pellegrino suggests that the process of clinical judgement can be crystallised by answering three successive questions: What can be wrong? What can be done? What should be done? It is this third question that testifies to the ethically grounded and patient-centred purpose of clinical judgement, as it translates reasoning from the scientific realm of induction and deduction into the moral realm of the patient’s good. Thus framed, clinical judgement is a *telos*-guided endeavour that greatly resembles the virtue of practical wisdom.
Teaching and learning ethics

A paediatrician is caring for a 4-month-old girl who is brought to the paediatric clinic by her parents for a 4-month well-child exam.

At the girl's 2-month exam, her parents had refused routine vaccinations, at which time the paediatrician reluctantly said that these vaccinations could be postponed until her 4-month appointment, but no later. At the current visit, the paediatrician spends 30 min with the parents discussing the necessity of vaccinations. During this discussion the paediatrician learns that their resistance stems from having read articles on the internet about the connection between vaccinations and autism; they have no religious or philosophical objections to vaccines.

The paediatrician feels very frustrated by the parents' persistent objection to vaccination in light of all the evidence in favour of the benefits of vaccinations. The paediatrician makes one last effort to explain how serious a matter this is, not only for the girl but also for the health of other children, including those who might be exposed to future infections in the paediatric clinic's waiting room. The parents listen respectfully to this final attempt at persuasion but do not change their minds. The paediatrician wonders what to do, pondering two options in particular: (1) continue to care for the girl despite her parents' refusal to allow vaccination, or (2) inform the parents that because of their refusal they will have to find another paediatrician for their daughter.

What should the paediatrician do?

Practical wisdom would suggest a process of deliberation (only sketched here) based on five questions (reflecting the five core elements of practical wisdom in the text):

1. What goals of care should guide decision making?
   Relevant goals would include: protecting the girl from infectious diseases, protecting the girl from vaccine adverse effects, protecting other clinic patients from infectious diseases, protecting society from infectious diseases.

2. What are the details that provide an accurate perception of the concrete circumstances?
   Relevant details would include: known risks of contracting infectious diseases, known risks of spreading infectious diseases, known efficacy and benefits of vaccination, known risks of vaccination, legal regulations regarding vaccinations, rationale for paediatrician's recommendation, rationale for parents' refusal.

3. What moral principles and virtues can provide an acceptable normative framework?
   Relevant principles and virtues would include: beneficence and non-maleficence (towards girl), respect for autonomy (towards parents as surrogate decision makers for their daughter), justice (towards other clinic patients and members of society), utility (long-term consequences to girl and society), respectfulness (towards parents), respect for conscientious practice (of paediatrician).

4. How can goals of care, concrete circumstances, and moral principles and virtues be integrated?
   Integration would entail prioritising goals, assessing the quality of available medical data, and prioritising multiple ethical values.

5. Is there motivation to act to achieve the conclusions reached by the process of deliberation?
   Given the significant implications and potential repercussions of this decision, there is a clear need for motivation on the part of the paediatrician to act to achieve the conclusions reached through deliberation, regardless of the course of action chosen.
the importance of ethical reflection (developing a conscious understanding of who we are and what we do). In medical practice and education, some have suggested that the benefits of reflective practice include the acquisition of wisdom through the development of mental habits that involve ‘thinking about thinking and feeling about feeling.’ Consistent with such views, I would suggest that reflective habits such as self-monitoring and mindful practice can be understood as part of a clinician’s attempt to look truthfully at a clinical situation on the assumption that our mental processes and inner experiences have the potential to influence the way we perceive the concrete clinical circumstances we encounter.

CONCLUSION

Practical wisdom and clinical judgment both involve deliberating about actual circumstances in light of desired ends and accepted moral values. We can draw from the virtue of practical wisdom to expand our understanding of clinical judgement by being more deliberate about the clinical goals and ethical values that guide and direct its use. When connected to goals and values, the practice of clinical judgement is more likely to help clinical decision making stay on course towards the particular good of an individual patient. Establishing goals requires patient–physician dialogue so that biomedical realities and options can be integrated with patients’ beliefs, values and preferences. Such dialogue is essentially an ethical responsibility, because understanding and working to achieve patients’ goals is a way of respecting their freedom and dignity. If clinical judgement follows the pattern of practical wisdom, it will involve a vigorous integration of medical knowledge, clinical observation, communication and ethics. It may sound presumptuous to recommend the possibility of cultivating practical wisdom among medical students and physicians-in-training. But an alternative way to pose this possibility would be to suggest that a coordinated strategy of training in clinical judgement, goal-directed communication and ethics is, in effect, an attempt to cultivate practical wisdom in medicine. To move in this direction, there is a need for integration across standard pedagogical domains, especially between clinical reasoning (including evidence-based medicine), communication and ethics. There may also be a need for an attitudinal shift towards a more explicitly goal-directed approach to clinical care. Even though many parts of routine clinical practice do not require explicit articulation of goals of care and ethical values (because certain goals and values in many situations can reasonably be taken for granted), it remains important for training purposes to encourage habits of clinical judgement that are consciously goal-directed and ethically informed. If such encouragements are successful, clinicians will be all the more prepared to handle situations when the need for explicit engagement with goals and ethics is clear, especially in end-of-life care, chronic progressive illness, patient–physician disagreements, and a variety of other contexts that raise ethical challenges.

Ultimately, training in wise clinical judgement will take years of practice in the company of experienced clinicians, who, as role models, are able to demonstrate practical wisdom by example. We also need to encourage trainees to learn from their own successes and failures, for practical wisdom, as Aristotle observed, is not found in those who are young, because it comes only by way of experience.27 And to the extent that standard pedagogical approaches are useful, we can take concrete steps in lecture halls, seminar rooms, outpatient clinics and inpatient wards to stress the importance of communicating with patients about goals of care when considering diagnostic and therapeutic options, even as we stress the vital importance of standard components of clinical judgement and clinical ethics. For instance, in the same way we have learnt to ask, when ordering a test, ‘How will the results of this test change my management of the patient’s care?’, we can help trainees by asking, ‘How will this test (or treatment) help achieve the patient’s goals of care?’ Such a question places goals in the foreground of clinical thinking and may help us avoid succumbing to pressures in the clinical environment that create an attitude of expediency that allows decisions to flow from what is available rather than from what is advisable.

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