



The View from the Medical School Dean's Office

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Lynn Buckvar-Keltz, Allison Ludwig,
and H. Carrie Chen

Remediation Concerns During a Day in the Dean's Office

8:30 am: Review of data on students to be discussed at the preclinical board meeting tomorrow reveals that one of the students who failed an exam last week is already currently repeating the first academic year. This will automatically trigger a discussion regarding dismissal. A meeting will be required with the student to assess his recent difficulties and prepare him for potential consequences.

10:00 am: Phone call from a clerkship director concerned that BD (they/them) is “odd” and does not relate well to patients, nurses, or the clinical team. Their peers seem to lose patience with them quickly,

and the residents report that BD has not integrated into the clinical team after 3 weeks on the rotation. The director observed BD interview a patient and found them to have difficulty with developing rapport and eliciting the narrative thread of the patient's history. The director does report that BD seems to be working hard and “has a good heart.” Nobody has given this feedback to BD verbally or in writing. When it is suggested that BD's performance may be in the failing range, the director immediately states, “Oh, I don't want to fail them. I just want the Dean's Office to be aware so you can do something for BD.” The director then asks, “Has BD had problems like this in other clerkships?”

11:15 am: A student pops in, presumably to say hello, and then becomes tearful. She expresses worry that she will fail another exam and that she does not belong in medical school. Upon questioning, she reveals that she is isolated, does not feel connected to her classmates, has difficulty sleeping, and feels exhausted all the time.

12:00 pm: Meeting with a third-year student who just failed his second NBME shelf exam during his core clinical clerkships.

L. Buckvar-Keltz
Department of Medicine, New York University
Grossman School of Medicine, New York, NY, USA
e-mail: Lynn.Buckvar-Keltz@nyulangone.org

A. Ludwig
Department of Medicine, Albert Einstein College of
Medicine, Bronx, NY, USA
e-mail: allison.ludwig@einsteinmed.edu

H. C. Chen (✉)
Department of Pediatrics, Georgetown University
School of Medicine, Washington, DC, USA
e-mail: carrie.chen@georgetown.edu

1:30 pm: Review the neuropsychological report of a second-year student sent by the consultant learning specialist (with the student's permission) that includes a new diagnosis of ADHD and recommendation for test accommodations.

3:30 pm: Email from first-year course director concerned that MR has been late to small group several times, did incomplete jobs on two assignments, and now has a second unexcused absence from lab today. The director, who has tried speaking to the student multiple times, believes that MR may be struggling because of pressure from home and some ambivalence about being in medical school.

5:30 pm: Chair of the professionalism disciplinary committee comes by to personally update the dean's office on the results of the afternoon's committee meeting. Based on the evidence provided, the committee has determined that NH did deliberately alter the results on an assessment in an attempt to boost his grade. He has been suspended, and the "suspension due to a professionalism violation" will be included on his transcript and on his Medical School Performance Evaluation (MSPE, also known as the "Dean's Letter"), a required part of residency program applications.

are often the first to identify and intervene with students who struggle. In addition to working with students and faculty to identify the underlying causes of a student's challenges, the dean's office needs to be concerned about resource availability for and the cost of remediation, legal and privacy issues, and final competency decisions. In this chapter, we will discuss the issue of medical student remediation from pre-admission until graduation through the lens of the school's interests and obligations to students, faculty, and society.

Before embarking on the challenges of remediation as medical school deans, it is important to note that the responsibilities of the dean's office listed above may be housed within one position/person or shared among multiple people. Traditionally, and in many institutions, all or most of the responsibilities above fall under the purview of a student affairs dean. More recently, there has been some recommendations to separate the oversight of academic progress and therefore student remediation from that of other student support functions (e.g., advising, student well-being) to prevent potential conflicts of interest. Some institutions have created a competency or assessment arm of the dean's office to oversee academic progress and remediation, while others have housed these functions under curricular affairs. Regardless of the approach to delegating responsibilities within an institution, there are key issues and challenges to address regarding student remediation. We will first delineate common underlying causes of student difficulty and then discuss potential resources as well as contextual and other important considerations.

Introduction

It is the role of a medical school dean's office to balance the dual responsibilities of advocating for students and upholding the integrity of the curricular program. This work is especially challenging when working with students who struggle and require remediation. Given the diverse portfolio of responsibilities in the medical school dean's office, which include overseeing the academic progress of students, disciplinary processes, mentoring and advising, student health and wellness programs, student experience, extracurricular activities, and admissions, deans

Common Causes of Student Difficulties

By definition, a student who struggles does not meet the expectations of medical school because of at least one of many underlying reasons having to do with knowledge, skills, or attitudes [1]. The more common causes as viewed from the dean's office are discussed below.

Academic Issues

Academic Concerns Arising in the Pre-clerkship Curriculum

Deficits in foundational knowledge are usually identified via poor performance on knowledge examinations and small group discussions and come to attention within the first few months of school. Some students may be less academically prepared in general (see Chap. 7). There are also students who have difficulty acclimating to the type of studying and testing common in medical school, for example, if students have taken time away or are accustomed to more conceptual testing from prior studies in fields such as engineering. Finally, some students will benefit from neuropsychological evaluation by a learning specialist to assess for an underlying undiagnosed learning disability (see Chap. 17).

At times, substandard performance in foundational knowledge may merely be a symptom of a problem with motivation. Some students may not have been prepared to sit through or be able to see the relevance of the pre-clerkship curriculum to their goal of providing excellent patient care. Other students have difficulty articulating their reasons for wanting to become a physician and sometimes voice the pressure put upon them by external expectations, such as from parents and other family members. It is important to identify an unmotivated student, as the usual remediation approaches will not help them. These students may appear to be sabotaging their own success and require culturally sensitive coaching that leads to insight and help with practical career planning. Serious reflection on the part of the student is necessary (see Chap. 15). For students who are motivated for clinical but not classroom education, arranging for clinical shadowing can remind them why they chose medical school. For students who express ambivalence about becoming a physician, a leave of absence to pursue other interests can be helpful. Some of these students will choose a different career path with better personal fit, which should be viewed as a successful outcome for the student.

Academic Concerns Arising in the Clinical Curriculum

The transition from pre-clerkship to clerkship curriculum is often the time that difficulties with interpersonal skills and professional behavior are noted and begin to have a greater impact on academic performance. The clinical setting requires students to rapidly gain and apply a new set of skills. Workplace-based learning has been described as “learning as participation” [2]. Students who have difficulty participating and engaging in teams and with others in the clinical workplace experience negative impacts on their knowledge and clinical skill development. These difficulties may be due to shyness and not knowing how to engage proactively or to a range of deficits in interpersonal or professionalism skills. Some of these students may be identified in the pre-clerkship curriculum because of early clinical exercises in which interpersonal, communication, and professionalism skills are practiced and/or assessed. The more significant behavioral challenges are addressed next.

Professionalism Issues

What most often keeps deans up at night are students' high-profile unprofessional acts. Though most students behave professionally all the time, unsavory behavior by a student is long remembered by faculty and classmates. Unfortunately, deans can recount stories of egregious behavior: student arrests for breaking the law, collusions between students to cheat or lie about absences from didactic sessions, etc. Naturally, there are often several different issues that may intercalate to produce those behaviors, including many of the forces listed above and below. Academic dishonesty, patient privacy violations, and failure to meet academic responsibilities in a timely manner are the more common instances of unprofessional behavior.

Schools vary in their policies regarding the reporting, investigation, and remediation versus dismissal for unprofessional behavior. Several schools utilize honor codes, which have been shown to lower the rates of academic

integrity violations. Honor codes often delineate expectations, provide examples of violations, and detail judiciary procedures including reporting, proceedings, penalties, and/or appeals. In many cases, the judiciary body includes student members, so that peers are engaged determining whether a violation has occurred, the severity of the violation, and the appropriate penalty [3].

More frequently, unprofessional behavior may be minor and investigated and remediated without the formal activation of a disciplinary committee. However, this can become problematic if a pattern of relatively “low-level” inappropriate behaviors develops. Systems should be in place to identify these patterns, provide early intervention, and appropriately escalate to a disciplinary committee when necessary [4, 5]. This may occur at the level of the student affairs dean and/or course/clerkship director committees where records are kept of minor issues. Regardless of the system used, it should be transparent to students that a pattern of behavior will trigger an official complaint to the disciplinary committee (see Chap. 14).

Psychological Distress and Mental Health Issues

Some students become anxious regarding their academic performance in medical school, hindering their success. Because medical students are academically gifted and have typically been at the top of their classes throughout their education, adjustment to being “average” in medical school is a challenge for some. Many of these students become disappointed and question their abilities. Impostor syndrome and stereotype threat run rampant throughout medicine [6] (see Chaps. 3, 18). Support and encouragement can be very helpful in this circumstance. Simply pointing out the obvious fact that 90% of medical students cannot be in the top 10% of their medical school class often helps students adjust expectations. A pass/fail curriculum may lower the anxiety level for students and importantly may particularly help underrepresented

minority students in the clerkships, where implicit bias among supervising staff in a subjectively graded milieu further reinforces anxiety [Chap. 3; 7].

Most medical schools preemptively encourage students to attend to stress management and their wellness, providing support through formal and informal programming. Student health psychiatrists have extensive experience with medical students and can be helpful with specific issues such as “test anxiety” (see Chap. 7). Learning specialists can speak to students about neurocognitive profiles and study strategies (see Chap. 17). Many schools have embraced a range of formal or informal sessions and tools that address healthy eating, mindfulness meditation and stress management, yoga and other exercise, sleep, acupuncture and other complementary and alternative health strategies, and other activities that reinforce resilience. Attendance at voluntary events can increase if, rather than focusing on “self-help,” they emphasize how activities may help their peers or future patients (see also Chap. 18).

Mental Health Disorders

Anxiety, Mood, and Thought Disorders

Academic stress can trigger an episode of an underlying mental health disorder or uncover significant previously undiagnosed illness, such as depression, bipolar disorder, anxiety, and thought disorders. Thought disorders also show an increased prevalence in people in their 20s, exactly when most are in medical school. Faculty and deans must be vigilant in identifying medical students at risk for developing mental health issues and have mechanisms for intervention in place. Mental health professionals at student health services represent an important adjunct. These resources must be confidential and accessible outside the medical student workday. In addition, schools need the ability to regularly refer students to outside mental health professionals for ongoing treatment.

When mental illness is diagnosed for the first time in medical school, students exhibit a range of insight into their illness and willingness to

undergo treatment. Extra difficulty may present when there are coexisting substance use disorders (see Substance Use below). Recent data on suicides in medical students and residents heighten the importance of detection and treatment [8, 9]. Balancing the student's personal safety and ability to get through their clerkships with the safety of the patients they care for remains one of the dean's office's greatest challenges.

Personality Disorders

In general, the persistence of personality traits or disorders and their relative lack of responsiveness to treatment make working with students who exhibit these traits challenging. Careful monitoring and follow-up throughout medical school are important. We describe three personality types that present particular difficulty: antisocial, borderline, and schizotypal.

Students with antisocial personality traits demonstrate socially irresponsible and exploitative behaviors, disregard for school policies and professionalism expectations, lack of remorse, and inability to learn from the consequences of their actions. These students need clear expectations outlined for them. A national criminal background check for applicants at the time of their acceptance to medical school, currently used by most schools, may help reduce the number of medical students with antisocial personality disorder in the future.

Students with borderline personality traits are emotionally labile, have unstable relationships with others, are impulsive, and often have coexisting mood, anxiety, and substance use and eating disorders. Support teams working with these students should be aware of the student's common tendency to "split" the team members into extreme groups of "good" and "bad" and pit them against each other, which makes remediation very challenging.

Students with schizotypal personality traits are often described as "odd" or "eccentric" and have difficulty interacting with their clinical teams and with patients. It can be challenging to ascertain whether a thought disorder is present.

For such students, it is essential to have access to formal psychiatric evaluation.

Autism Spectrum Conditions

Students with previously identified or suspected autism spectrum disorders (ASDs), including those identified as having what has been referred to as high-functioning Asperger's syndrome (ASD without language or intellectual deficits), are often viewed as competent but quirky in the classroom setting. Their inaccuracy in reading social and emotional cues of others can lead to challenges in interacting in clinical teams and with patients. While these students commonly engender significant sympathy from classmates and faculty because of their good intentions and earnestness, their communication behaviors can alienate patients or clinical supervisors. Ideally, many would arrive at medical school already with the diagnosis and clear action plans. For those who do not, clinical exposures in the pre-clerkship years can identify students and allow early social skill training. Intensive coaching and role-play practice focused on clinical interviewing can help students gain and demonstrate the ability to function as effectively as their more "neurotypical" medical student peers (see also Chap. 12). The best predictor of success in these cases is the student's level of motivation and awareness of their own challenges.

Substance Use

Students may be impaired due to use of legal or illegal substances. Peers are usually the most knowledgeable about a classmate's substance use and may come forward to a faculty member or the dean's office to share this information. Care should be taken to be supportive of classmates' concerns and privacy while also obtaining accurate, reliable, and complete information. The school should confront the impaired student with information (test scores, evaluative comments, informal comments) that supports the conclusion that the student is unfit in their role as a medical student. The school may require an individual student undergo random blood and

urine testing. Students found to be impaired are required to undergo treatment and monitoring. In New York State, medical students can be enrolled in the Committee on Physician Health (CPH) for ongoing monitoring and treatment. Students should be required to allow communication between CPH or similar monitoring/treatment programs and the medical school for the duration of their time as a student. CPH requires continued random drug testing and therapy as conditions of their program and reports periodically to the medical school regarding ongoing compliance with their requirements.

The mission of the New York State Medical Society's Committee for Physician Health is to promote quality medical care by offering "non-disciplinary confidential assistance to physicians, residents, medical students, and physician assistants experiencing problems from stress and difficult adjustment, emotional, substance abuse, and other psychiatric disorders, including psychiatric problems that may arise as a result of medical illness. We recommend evaluation, treatment, and/or other assistance to our participants and monitor for progress in recovery from illness. In this way, we can also provide strong advocacy on behalf of the participant to continue their practice as a physician or physician-in-training" [10].

Fitness for Duty Evaluation

Occasionally, a student's psychiatric illness or suspicion of impairment will call into question their fitness to continue as a medical student. While fitness for duty issues may be more common at the GME level and in clinical practice, where physician impairment must be reported to the state medical boards, the same concerns for patient safety also apply to students on clinical rotations. Some schools may have an administra-

tive psychiatrist who conducts fitness evaluations using primary and sometimes ancillary data to make a determination. Other schools may need to rely on determinations made by the psychiatrist to whom the student has been referred or who is treating the student. Schools should place students found to be "unfit" on a leave of absence and require students to address their issue before being considered for return to the school. Students on leave who request a return should be evaluated for fitness to return by either the school's administrative psychiatrist or the student's treating psychiatrist. Where available, students should be strongly encouraged to participate in monitoring and support programs such as the New York State CPH.

Dean's Office Resources for Remediation

Schools develop their own resources to remediate students and vary widely on what is available and on who pays for the remediation. Philosophically, schools need to determine whether their supports (i.e., offering and paying for remediation) are helpful to the student or enabling a lack of responsibility and ownership on the student's part. Table 20.1 lists resources that schools may commonly make available for remediation, a list of "Dream Resources" (those that would be of great help but unavailable to most schools), and an estimate of the cost of remediation per student at this point in time.

An example of student use of resources follows, using New York University (NYU) as a case study. At NYU, unlimited peer tutoring is offered to all students who request it. Peer tutors are selected based on faculty nomination, undergo training as coaches of medical knowledge learning and assessment, and are required to develop goal-directed learning plans with the students they work with and submit progress reports regularly. Out of about 730 students enrolled, approximately 100 students will use tutoring services in an academic year. Students do not need to fail an exam or have "marginal" exam performance to obtain peer tutoring. Approximately 10–15 students undergo a

Table 20.1 Remediation resources***Resources commonly available for remediation:***

1. Learning specialist (expenses related to neuropsychiatric testing and diagnosis may or may not be covered; expenses related to treatment typically not covered)
2. Academic tutoring
3. Student mental health services with staff psychiatrists and/or psychologists (the insurance accepted, and number of visits covered varies)
4. Course faculty
5. Faculty with expertise in remediation
6. Simulation experiences with expert faculty
7. Resident/Physician support programs open to medical students offered by the affiliated hospital/healthcare system, state medical society, etc.

“Dream resources” that are not typically available:

1. Targeted remediation programs, including simulation, developed and delivered by expert faculty
2. Administrative psychiatrist
3. Comprehensive mental health services with expanded coverage (e.g., unlimited number of visits, support for intensive psychotherapy)
4. Professionalism coaches and assessment tools to remediate and reassess students who have failed due to professionalism concerns
5. Social skills coach/therapist to work one-on-one with students who struggle with interpersonal and communication skills (e.g., students with autism spectrum conditions) to observe behaviors in clinical settings, develop intervention plans, and remediate the students

Examples of the costs associated with remediation per student (as of December 2022):

1. Complete learning specialist evaluation: ~\$5000/student
2. Peer tutoring: \$26/h
3. Private tutoring: \$150 and up/h
4. Student health psychiatrist: typically included in student health service budget
5. Administrative psychiatrist: \$20,000/year and an additional \$2000/student evaluation
6. Course faculty: no additional cost
7. Faculty with expertise in remediation: no additional cost
8. Comprehensive clinical skills exam (CCSE) remediation: ~\$400/student excluding faculty time
9. Outside professionalism programs: \$2500–\$7500

detailed learning evaluation each year. Approximately 20 students undergo remediation for skills exams each year, which includes students remediating within preclinical modules (such as after failing an Objective Structured Clinical Examination, or OSCE) or failure in a comprehen-

sive clinical skills exam, which is an eight-station, high-stakes, end-of-clerkship-year OSCE.

Each school has its own method of remediation of medical students. While the remediation often occurs within a course or clerkship structure, it can be helpful to also have faculty with expertise in remediation of clinical skills and professionalism lapses. For some schools, there may be resources available within their affiliated health systems/hospitals such as communication training programs for residents and physicians willing to accept medical students. Finally, there are also available outside resources for remediation of professionalism issues such as the Vanderbilt Comprehensive Assessment Program for Professionals at Vanderbilt University Medical Center and Acumen Assessments in Kansas.

Considerations for Admissions

Academic and Nonacademic Attributes

The policy for medical school admissions is the most important factor determining who becomes a physician. In the United States, the competition for a spot in medical school is daunting: in 2020, the AAMC reported that there were 50,030 applicants, 22,239 of whom matriculated to US medical schools. This is a 44% acceptance rate for students having undergone grueling premedical coursework and the MCAT, both of which cull out lower performing students. The good news for these matriculants to US medical schools is that they will most likely graduate with a degree to practice medicine. For 20 years, starting with the 1997–1998 school year, an average of 3.2% of students left medical school for any reason; from 2007–2008 to 2017–2018, approximately 1.2% of all medical students left for academic reasons [11]. Thus, admissions committees and officers are more influential in determining who becomes a physician than others in the dean's office. Given this, the question is whether we are giving our admissions committees/officers the tools to make the most informed decisions.

The first time a student's ability to succeed in medical school may be questioned is during review of his or her application to medical school. Academic concerns arise when students have grade point averages and MCAT scores significantly below the school's mean for accepted students. Studies suggest that these academic indicators correlate, but without statistical significance, with learning foundational medical knowledge and USMLE scores [see Chap. 2; 12].

Much attention is paid to an uneven academic record or fluctuating grades, as this may be a sign of lack of motivation, lack of interest, or emotional difficulties. Withdrawals from coursework, especially repeatedly, raise concerns. Additionally, the record is scanned for certain patterns. Has the student been fully engaged in the extracurricular life at their undergraduate school? If not, why not? Is all their nonclass time already devoted to studying, suggesting that the student may not have "additional reserve" to handle medical school? A leave of absence may be another sign of some underlying difficulty. Indication of disciplinary action is a concern. Supporting materials such as a Dean's Letter (supplied by some undergraduate schools), the student's personal statement, or letters of recommendation may help explain any unevenness in performance without raising red flags. Unfortunately, the value of these specific application-based variables as predictors of success in medical school has not been well studied. However, studies have shown that unprofessional behavior of practicing physicians reported to state boards is correlated with a history of certain unprofessional behavior in medical school [13].

While academic attainment is a predictor of early performance in medical school, it becomes a less important predictor as students advance into clinical training and practice [14]. In order to assess nonacademic qualities of applicants such as ethical judgment, communication skills, and problem-solving capabilities, some US schools have adopted McMaster University's model of multiple mini-interviews (MMIs) with standard scenarios to be discussed by the applicant. Others have added situational judgement tests (SJTs), which have been used in the United Kingdom for

selection in graduate medical education and other health professions. In SJTs, written or video-based scenarios are followed by a list of response options that can be administered online to generate a score or used as part of an MMI. Both MMIs and SJTs have been shown to be valid and reliable methods for assessing nonacademic qualities, and more effective as selection tools than traditional interviews and personal statements [15]. The data thus far also show that the MMI predicts success on national licensing examinations in Canada [16]. Some of this approach may depend on one's philosophical stance regarding whether certain characteristics are static and should be selected for or against, whether the same or other characteristics are dynamic and responsive to coaching, and the availability of a school's resources to devote to coaching.

Since the last edition of this book, many medical school admissions offices have adopted at least some elements of "holistic admission": deemphasizing traditional markers of achievement (e.g., school grades and standardized testing performance) in favor of a broader definition of achievement: distance traveled, underrepresentation, etc. This shift has importantly amplified attention to how graduating medical students may develop to meet the evolving needs of the population as a whole. This broader definition of "achievement" brings a greater range in student academic backgrounds as well as differences in student preparation for the academic rigor of medical school, adding some uncertainty to determining admissions decisions. This new approach raises many questions. Are a history and conviction that the candidate will make a wonderful physician for interpersonal reasons enough to overcome the possibility that the demands of medical school may overwhelm a student who is incompletely prepared? How might schools meet promising students where they are and better support their learning?

Schools can provide support prior to, at, and/or after matriculation. Georgetown University offers a postbaccalaureate program specifically designed to equip underrepresented and disadvantaged students for future success in medical school. The program exposes students to a rigor-

ous curriculum comparable to the experience of first-year medical students and adds customized advising and a parallel curriculum focused on the development of academic skills (“learning how to learn”). Many schools offer programs pre-matriculation or immediately at matriculation for students who have a gap between college and medical school and/or did not have an undergraduate major in science. With the increased use of online platforms for delivering this content, these programs can be offered to all students. Additional methods of supporting students both before and after matriculation must consider the common experiences of impostor syndrome, stereotype threat, bias, and microaggressions that disproportionately affect underrepresented minority students (see Chap. 3). Schools should attend to student stories of their experience and, particularly if they have dedicated deans of diversity, work closely with them to develop support programs.

Technical Standards in Admissions

Schools are expected to assess applicants based on their ability to complete the educational program. Occasionally, an applicant will apply to medical school but may not possess the functional ability to perform as a medical student. The Americans with Disabilities Act (ADA) protects citizens with disabilities from discrimination. The purpose of the ADA is to provide opportunities for persons with disabilities to compete with other applicants based on their ability. The ADA requires medical schools to provide accommodations to disabled persons to enable them to access the benefits, services, and opportunities available to the nondisabled (see Chap. 17). This means that suitable applicants must be able to perform the “essential functions” and meet the “essential eligibility requirements” of the program once provided with the appropriate accommodation. Each school is free to determine the “essential functions” or “essential eligibility requirements” of its own educational program. While schools cannot inquire about a disability prior to admission, they can seek information to ensure that an

applicant can perform these essential functions [17]. In recent years, many schools have developed *technical standards* to clarify and communicate those essential functions and eligibility requirements.

We share a sample set of technical standards from Georgetown University in Table 20.2 [18]. The technical standards at each school will vary

Table 20.2 Sample technical standards [18]

Guided by the Jesuit tradition of *cura personalis*, care of the whole person, Georgetown University School of Medicine will educate a diverse student body, in an integrated way, to become knowledgeable, ethical, skillful, and compassionate physicians and biomedical scientists who are dedicated to the care of others and health needs of our society. An applicant for the M.D. degree, and an enrolled student seeking the M.D. degree, must meet the technical standards or functional equivalent, with or without reasonable accommodations, deemed essential functions for the care of patients. These abilities and skills, as determined by Georgetown University School of Medicine, are as follows:

1. **Perception:** Students enrolled in the M.D. degree program must be able to observe demonstrations and experiments required by the medical curriculum established by the medical faculty and be able to participate in such with adequate vision and other sensory modalities, including the senses of hearing and smell. A student must be able to observe a patient accurately at a distance and close at hand
2. **Communication:** Students must be able to skillfully (in English) communicate verbally and in written form to affect an adequate exchange of information with patients, family members, and other health professionals in order to fulfill academic requirements and to maintain accurate clinical records on patient care
3. **Motor:** Students must have sufficient motor function and tactile ability to meet the competencies required for graduation, as outlined by the Georgetown University School of Medicine, and to (1) attend (and participate in) classes, groups, and activities which are part of the curriculum; (2) communicate in a written format; (3) examine patients (including observation, auscultation, palpation, percussion, and other diagnostic maneuvers); (4) perform diagnostic procedures in addition to basic laboratory procedures and tests; and (5) provide general and emergency patient care in outpatient, inpatient, and surgical venues and perform in a reasonably independent and competent way in sometimes chaotic clinical environments

(continued)

Table 20.2 (continued)

4. Intellectual-Conceptual, Integrative, and Quantitative Abilities: Students must be able to demonstrate higher level cognitive abilities to meet the competencies required for graduation, as outlined by the Georgetown University School of Medicine, including an aptitude for timely problem-solving, capability to access and independently interpret medical files, evaluate physical examinations, and formulate a logical diagnosis and effective medical treatment plan. Students must possess good judgment in patient assessment, and the abilities to incorporate new information, comprehend three-dimensional relationships, and retain and recall pertinent information in a timely fashion

5. Behavioral and Social Attributes: Guided by the Jesuit tradition of *cura personalis*, care of the whole person, students must display compassion, sensitivity, and concern for others and maintain professional integrity at all times. In addition, students must develop mature, sensitive, and effective relationships: not only with patients but also with all members of the medical school community and healthcare teams. Students must also be able to promptly complete all assignments and responsibilities attendant to the diagnosis and care of patients (beginning with study in the first year). Students must tolerate physically, emotionally, and mentally demanding workloads and function effectively under stress. A student must be able to proactively make use of available resources to help maintain both physical and mental health. A student must display adaptability to changing environments, flexibility, and be able to learn in the face of uncertainty. All students enrolled in the M.D. degree program must take responsibility for themselves and their behaviors

Students enrolled in pursuit of an M.D. degree at Georgetown University School of Medicine are required to attest to these technical standards on an annual basis. The School of Medicine is committed to providing reasonable accommodations for students with disabilities. An applicant for the M.D. degree or an enrolled student seeking the M.D. degree with disabilities is encouraged to contact the Georgetown University Academic Resource Center as early as possible to begin a confidential conversation separate from an application or enrollment status, about what reasonable accommodations they may need to meet these standards

in its specifics but generally reflect the overall mission of educating students who can perform the essential functions for care of patients with or without reasonable accommodations. Reasonable accommodations at schools, based on their specific standards and available resources, can range

from allowing students extra time to take an exam due to learning disabilities to alternative clinical experiences during the COVID-19 pandemic for students who are immunocompromised and to supplying hearing-impaired students with specialized stethoscopes.

Student Financial Considerations

Remediation that requires an extension of time in medical school has financial implications for students in terms of additional tuition, fees, and associated costs of living. While some schools have instituted discounted tuition and fees for students who need to extend or decelerate their curriculum, the additional financial burden adds to the student stress of having to remediate. Other schools have worked to address the financial consequences by taking a “pay for degree” approach, where students pay a maximum of 4 years of tuition and fees and have up to a certain number of years (e.g., 7) to complete their medical degree. NYU, for example, prior to becoming a “tuition free” school, had already determined that the extra amount of tuition a very small number of students might contribute is ultimately administratively negligible. This “pay for degree” approach allows schools tremendous flexibility in placing students on a decelerated curriculum when needed to diagnose and address/remediate performance challenges.

Student Privacy Considerations

The Family Educational Rights and Privacy Act (FERPA)

The Family Educational Rights and Privacy Act (FERPA) [19] is a federal law that protects the privacy of student education records. The law applies to all schools that receive funds under an applicable program of the U.S. Department of Education. FERPA gives adult students certain rights with respect to their education records. Generally, schools must have written permission from the student to release any information from

a student's education record and remind students of their rights annually. In certain cases (for example, to school officials with legitimate education interest), FERPA does allow schools to disclose those records without consent. *These rules, as well as concern for students' privacy, discourage extensive discussion across certain boundaries regarding challenging student cases.* Interpretation of these rules varies widely from school to school.

Forward Feeding of Information: Sensitive and Controversial

Schools vary greatly in their practice regarding whether information about students who struggle should be kept confidential or "fed forward," in other words, shared with those who will be working with the student. At some schools, only the dean's office is informed of a student's challenges, and only the dean's office can determine whether and which faculty members will be informed and to what level of detail, within the parameters of FERPA. Here, it is the dean's office or appropriate committee (e.g., committee on promotions or professionalism disciplinary committee) that reviews and makes remediation decisions, and student difficulties are often not disclosed or fed forward. At other schools, information on students who struggle may be fed forward by the dean's office, by a committee of course/clerkship directors, or by an individual course/clerkship director to the next course/clerkship director in order to allow the provision of additional support or identification of patterns of behavior. Sometimes, this information is further fed forward to the frontline faculty working directly with the student.

The practice of forward feeding is controversial, with only about half of US medical schools engaging in the practice. Few schools have written policies that make their practice clear to students and faculty [20, 21]. As noted in Chap. 2, there are advantages and disadvantages to feeding forward. As they move from one course to another, from the preclinical to clinical curriculum, or from one clerkship/specialty to another, it

is not unusual for students to stumble in one setting and then flourish in another. When information is fed forward, particularly when given to the faculty working directly with students, students can be unfairly branded, resulting in greater scrutiny of the student with expectations that they will struggle and explicit or implicit bias resulting in unfair treatment. On the other hand, when information is not fed forward, there are missed opportunities to work with and provide additional support to students who struggle. Often, patterns of difficulty or behavior may be overlooked, resulting in significant delays in identification and remediation of challenges [22].

Information-Sharing with Admissions

Medical schools also vary in their approaches to "feeding back" information to admissions offices and committees regarding students' medical school performance. Schools run the gamut from having admissions deans on promotions committees to having no communication to the admissions office regarding student performance once a student matriculates. The latter policy may hamper the admissions committee's ability to continuously improve upon their evaluations of future applicants. The former may introduce bias for or against certain student characteristics when making predictions based on the limited and unsystematic experience at one school, particularly given the paucity of research data available to guide admissions decisions.

Some dean's offices or promotions committees may routinely review the medical school application file of each student having difficulty to look for evidence of previous academic or behavioral difficulties. This review may provide insight into the nature of the issue, whether it is chronic or recurrent, and inform choice of remediation strategies. It can also identify and provide to admissions offices or committees retrospective "red flags" in application materials that could inform the admissions process. Some schools structure regular communications between the dean's office and the admissions committee to ensure information-sharing about curricular

changes and feedback on support that is available for students after matriculation.

From time to time, the admissions office will “take a chance” on an applicant with an atypical or weaker academic history because of a particular experience or talent that suggests promise to become an outstanding physician. In these cases, *it is not clear whether giving proactive support to the student is beneficial or not*. Labeling a student as academically at risk may seriously hamper their self-confidence and cause undue anxiety (see also Chap. 3). Additionally, identifying at-risk students to faculty (see “forward feeding” section above) may unconsciously bias the faculty. Some schools offer elective academic support in advance of the start of medical school.

The Official Academic Record

The contents of the official academic record are specific to each school. At many schools, the official academic record consists of a student’s transcript, student’s duplicate record (transcript plus biographical information and USMLE scores), narrative evaluative comments from faculty, medical student performance evaluation (“MSPE,” aka “Dean’s Letter”), and, for a small number of students, a disciplinary report. The entire official academic record can be obtained by subpoena in a court of law.

The American Association of Medical Colleges has guidelines regarding the medical student performance evaluation (MSPE), which include such issues as follows:

- Inclusion of students’ academic history including any extensions, leaves of absence, and gaps or breaks in a student’s educational program
- Information, based upon school-specific policies, of coursework that the student was required to repeat or otherwise remediate

- Information, based on school-specific policies, of any adverse action(s) imposed on the student by the medical school or its parent institution
- Information about students’ academic performance and professional attributes in preclinical coursework, and clinical and elective coursework, including:
 - Statement regarding a student’s attainment of professional standards as defined by the school
 - Graphic representation of a student’s performance as compared to his or her peers
- Narrative assessments of students from preclinical and clinical courses based upon summative faculty evaluations
- Assessment of professional behavior:
 - Information on citations for unprofessional behavior, including incident and remediation actions taken
 - Information on commendations for exemplary professional behavior

Each state medical licensing board has its own requirements for documentation, which in some cases are quite extensive. For instance, California currently asks if a student has been on probation during medical school. Some schools have policies in which students are placed on probation for academic or professionalism reasons during medical school, with the agreement that the record will be “sealed” if the student does not have any repeat issues. However, this becomes an issue for students applying for licensure in select states that ask this question. The definition of probation is evolving and becoming more formalized and specific in response to this changing landscape. Some institutions are now reserving the term “probation” for use after the effectiveness of early stages of remediation can be assessed. In these cases, the terms “focused review” and “academic warning” are used to denote the early stages of remediation.

Credentialing services will contact medical schools on behalf of graduate programs and institutions to verify completion of medical education. Typically, they request information about interruptions in medical education, academic or disciplinary probation, unprofessional conduct or reports of negative behaviors, or questions of academic incompetence. Such reports should be completed based on the official academic record. Student data that are outside of the official academic record CANNOT be shared with outside parties, including residency programs and licensing boards. This includes oral or written “off-the-record” comments by faculty, peers, or others in the administration. Many dean’s offices keep records of discussions with students. As long as their only purpose is to serve as the written “memory” of the dean, these records are private and not available at the time of subpoena.

What to Recommend to a Graduating Medical Student

Students who have undergone remediation in medical school may or may not be at risk for difficulties during postgraduate training. All students should be counseled to seek out training programs that best fit their goals, strengths, work styles, and personal requirements. Divulging remedial work that is not part of the student’s record is the personal choice of the student and should be made carefully. Students should be encouraged to be honest and professional while understanding their own right to privacy. Generally, students who demonstrate insight, engage with enthusiasm, successfully complete, and grow from remediation programs are especially prepared for residency training and practice. In fact, the student may perform as well, or better, than their colleagues who did not struggle during school. Graduates can optimize their success by asking for feedback frequently from peers and supervisors and acting on the information gained. Graduates with disability accommodations in place should be encouraged to proactively bring documentation to their program director well in advance of needing the actual

accommodations to ensure that appropriate supports are put in place. Students also need to be aware that accommodations within hospital systems can be particularly difficult to enact as patient care and patient privacy policies supersede their rights in some cases.

Dismissal of Medical Students

The percentage of medical students dismissed from school is strikingly small when compared to other professional schools such as law or business. Medical school faculty are more comfortable with their role in identifying and remediating students who need additional support than in determining when a student cannot meet milestones and must be dismissed. If dismissal from medical school is being seriously considered, the student must be informed. This discussion may be enough to motivate a student to be an active participant in successful remediation. It is also crucial to clearly outline, both verbally and in writing, the school’s requirements, including exact deadlines, for the student to complete remediation activities that reflect the school’s policies on student promotion and professional behavior. Legal counsel can be helpful with reviewing these documents, as policies may be subject to interpretation. Often, students are asked to meet with one of the deans when the school is considering dismissal. The dean’s office can guide the student to prepare for an appearance before the promotions or professionalism disciplinary committees and give the student feedback on their written statements. Typically, students in this situation have already been told multiple times that they are at risk for dismissal and have undergone remediation unsuccessfully. Many schools have the appropriate committee deliberate and vote on recommending a student’s dismissal to the dean, who makes the final decision. Students should have the right to appeal the decision within a defined time frame (see also Chap. 29).

The dismissal of a student is the most high-profile example of when the dean’s office and the involved faculty must balance their advocacy for the student with their obligation to the medical

school and society at large. In addition to following the institution's policies and procedures, the dean's office should consider the immediate needs and issues facing the dismissed student. Given the gravity of the situation, students should be encouraged to talk with a trusted friend or relative and referred to a mental health professional for support. The dean's office can also consider notifying the student health service in case the student contacts them for care. Once a student is officially dismissed, they need to leave school in a timely fashion. However, students do need time to move out of on-campus housing. If the school's policy allows it, refunding all or part of the semester's tuition is appreciated. A dismissed student may also appreciate and request that the dean's office explain the dismissal to a parent or spouse for them. The question of the next steps for a dismissed student, given the significant resources they have invested in medical training, is hotly debated and constitutes an area for continued investigation [23, 24].

References

- Steinert Y. The "problem" junior: whose problem is it? *BMJ*. 2008;336:150–3.
- Strand P, Edgren G, Borna P, Lindgren S, Wichmann-Hansen G, Stalmeijer RE. Conceptions of how a learning or teaching curriculum, workplace culture and agency of individuals shape medical student learning and supervisory practices in the clinical workplace. *Adv Health Sci Educ*. 2015;20:531–57.
- McCabe DL, Trevino LT, Butterfield KD. Honor codes and other contextual influences on academic integrity: a replication and extension to modified honor code settings. *Res High Educ*. 2002;43:357–78.
- Gill AC, Nelson EA, Mian AI, et al. Responding to moderate breaches in professionalism: an intervention for medical students. *Med Teach*. 2015;37:136–9.
- Mak-van der Vossen MC, Teherani A, van Mook W, Croiset G, Kusrkar RA. How to identify, address and report students' unprofessional behaviour in medical school. *Med Teach*. 2020;42:372–9.
- Bravata D, Watts SA, Keefer AL, et al. Prevalence, predictors, and treatment of impostor syndrome: a systematic review. *J Gen Intern Med*. 2020;35:1252–75.
- Bullock JL, Seligman L, Lai CJ, O'Sullivan PS, Hauer KE. Moving toward mastery: changes in student perceptions of clerkship assessment with pass/fail grading and enhanced feedback. *Teach Learn Med*. 2021;20:1–11.
- Goldman ML, Bernstein CA, Konopasek L, Arbuckle M, Mayer LES. An intervention framework for institutions to meet new ACGME common program requirements for physician well-being. *Acad Psychiatry*. 2018;42:542–7.
- Lucey CR, Jones L, Eastburn A. A lethal hidden curriculum—death of a medical student from opioid use disorder. *N Engl J Med*. 2019;381:793–5.
- Medical Society of the State of New York. MSSNY-CPH Mission. [Internet]. New York: Medical Society of the State of New York; c2011. <https://www.mssny.org/get-help/committee-for-physician-health>. Accessed 29 Dec 2022.
- American Association of Medical Colleges. Graduation rates and attrition rates of U.S. medical students. <https://www.aamc.org/media/48526/download>. Accessed 29 Dec 2022.
- Dong T, Gilliland WR, Cruess D, Hutchinson J, Morres L, Curtis J, Hewitt-Clarke GS, Durning SJ. A longitudinal study of commonly used admissions measures and disenrollment from medical school and graduate medical education probation or termination from training. *Mil Med*. 2018;183:e680–4.
- Papadakis MA, Teherani A, Banach MA, Knettler TR, Rattner SL, Stern DT, Veloski JJ, Hodgson CS. Disciplinary action by medical boards and prior behavior in medical school. *N Engl J Med*. 2005;353:2673–82.
- Ferguson E, James D, Madeley L. Factors associated with success in medical school: a systematic review of the literature. *BMJ*. 2002;324:952–7.
- Patterson F, Knight A, Dowell J, Nicholson S, Cousins F, Cleland J. How effective are selection methods in medical education? A systematic review. *Med Educ*. 2016;50:36–60.
- Eva KW, Reiter HI, Rosenfeld J, Trinh K, Wood TJ, Norman GR. Association between a medical school admission process using the multiple mini-interview and national licensing examination scores. *JAMA*. 2012;(308):2233–40.
- Hosterman JA, Shannon DP, Sondheimer HM. Medical students with disabilities: resources to enhance accessibility. Washington, DC: Association of American Medical Colleges; 2010.
- Georgetown University School of Medicine. Technical standards. <https://som.georgetown.edu/admissions/prospectus/technicalstandards/> Accessed 29 Dec 2022.
- Family Educational Rights and Privacy Act (FERPA), 20 U.S.C. § 1232g; 34 CFR Part 9. [Internet]. <http://www.ed.gov/policy/gen/guid/fpco/ferpa/index.html>. Accessed 29 Dec 2022.
- Ziring D, Danoff D, Groszman S, Langer D, Esposito A, Jan MK, Rosenzweig S, Novack D. How do medical schools identify and remediate professionalism lapses in medical students? A study of U.S. and Canadian medical schools. *Acad Med*. 2015;90:913–20.
- Masangkay N, Adams J, Dwinell B, Hanson JT, Jain S, Tariq S. Revisiting feed forward: promoting a student-centered approach to education handoffs,

- remediation, and clerkship success. *Teach Learn Med.* 2022;1–9. Epub ahead of print.
22. Chou CL, Kalet A, Costa MJ, Cleland J, Winston K. Guidelines: the dos, don'ts and don't knows of remediation in medical education. *Perspect Med Educ.* 2019;8:322–38.
 23. Aagaard EM, Moscoso L. Practical implications of compassionate off-ramps for medical students. *Acad Med.* 2019;94:619–22.
 24. Bellini LM, Kalet A, Englander R. Providing compassionate off-ramps for medical students is a moral imperative. *Acad Med.* 2019;94:656–8.