



INSIDE

Careers: Hospital-at-Home Practice Emerging as a Growing Venue for Physician Practice. Pg. 1

Careers: Unusual Parts of Compensation Packages. Pg. 8

Clinical: Infertility Evaluation and Treatment, as published in the *New England Journal of Medicine*. Pg. 11

The latest physician jobs brought to you by the NEJM CareerCenter

Tailor Made Edition
Jobs tailored to your career

Featured Employer Profile



Weatherby
HEALTHCARE™



April 24, 2025

Dear Physician:

As a physician about to enter the workforce or in your first few years of practice, you may be assessing what kind of practice will ultimately be best for you. The *New England Journal of Medicine* (NEJM) is the leading source of information about job openings for physicians in the United States. To assist you with your career advancement, this issue includes recent selections from our Career Resources section of NEJMCareerCenter.org.

The NEJM CareerCenter website (NEJMCareerCenter.org) offers physician users many confidentiality safeguards that keep your personal information and job searches private.

At the NEJM CareerCenter, you will find:

- Hundreds of quality, current openings — not jobs that were filled months ago
- Email alerts that automatically notify you about new opportunities
- Sophisticated search capabilities to help you pinpoint the jobs matching your search criteria
- A comprehensive Career Resources Center with career-focused articles and job-seeking tips
- An iPhone app that sends automatic notifications when there is a new job that matches your job search criteria
- Quick and easy options to apply for jobs through mobile and tablet devices

A career in medicine is challenging, and current practice leaves little time for keeping up with new information. While our commitment to delivering the highest quality research and clinical content remains unchanged, NEJM continually develops new features and enhancements to bring you the best, most relevant information each week in practical and clinically useful formats.

As an example, our popular Clinical Practice articles offer evidence-based reviews of topics relevant to practicing physicians. This edition includes the March 13/20, 2025, article, “Infertility Evaluation and Treatment.”

If you are not currently an NEJM subscriber, I invite you to become one by calling NEJM Customer Service at (800) 843-6356 or subscribing at NEJM.org.

On behalf of the entire *New England Journal of Medicine* staff, please accept my wishes for a rewarding career.

Sincerely,

Eric J. Rubin, MD, PhD



Hospital-at-Home Practice Emerging as a Growing Venue for Physician Practice

As the nascent model becomes more entrenched, physicians are playing key roles and appreciating the experience

By Bonnie Darves, *a freelance health care writer*

Physicians who are eager to expand their practice horizon and are interested in using innovative technologies to deliver comprehensive virtual care beyond the video sessions that proliferated during the pandemic may find a good fit in the emerging hospital-at-home programs that health systems are implementing. Physicians who have at least a few years of hospital-based practice experience are being tapped to serve as chief care facilitators or medical directors for hospital-at-home programs, and the demand for such expertise is predicted to grow in the coming years.

Hospital-at-home programs enable patients to receive high-acuity care in their homes, with the clinical oversight of physicians, typically hospitalists, and a combination of remote and onsite care providers. Most models operate from command centers and feature a robust equipment and technological backbone for vitals monitoring and patient communication. In an ideal scenario, hospital-at-home care is intended for patients who are sick enough to warrant hospitalization but stable enough to be safely cared for at home.

Career Resources articles posted on NEJM CareerCenter are produced by freelance health care writers as an advertising service of NEJM Group, a division of the Massachusetts Medical Society, and should not be construed as coming from the *New England Journal of Medicine*, nor do they represent the views of the *New England Journal of Medicine* or the Massachusetts Medical Society.

Primary candidates include patients with chronic-condition exacerbations or infections, those undergoing cancer treatment, and immune-compromised individuals at high risk for contracting infections. Some hospital systems are also exploring using the model for post-surgical patients. In many current models, patients who present to the emergency department or are already on medical-surgical units are evaluated by physicians for their potential to be safely treated at home instead of admitted to the hospital.

Hospital-at-home programs are not new. In Canada, England, Australia, and many European countries, such care models are well established, in part because they're easier to implement with single-payer models. In the United States, hospital-at-home programs were relatively rare until the COVID-19 pandemic push came to shove — catalyzing virtual care implementation in 2020 and spurring hospitals to create new programs on the fly.

Johns Hopkins pioneered the hospital-at-home model in the mid-1990s, but a movement didn't ensue. Most of the programs in place today are nascent. However, as the US Centers for Medicare & Medicaid Services continues to grant approval for hospital-at-home programs that meet its criteria — as of June 2024, 331 hospitals in 37 states had been authorized to provide such services, according to the American Hospital Association (AHA) — the model is expected to become more prevalent. AHA, which has 5,000 members, reports growing interest among members in establishing hospital-at-home programs.

The recently formed Hospital at Home Users Group has more than 100 active members, and an additional affiliate group includes hospitals and health systems that are considering establishing programs. These developments will increase demand for physicians, primarily hospitalists, who can help launch and direct hospital-at-home programs.

What hospital-at-home looks like on the ground

Not surprisingly, the hospital-at-home programs that are moving to full implementation are being led by large health systems and commandeered by hospital-based physicians. At Mayo Clinic in Florida, a program initially developed as a response to strained hospital capacity during the pandemic is now a full-scale Advanced Care at Home program. It is staffed by 12 physicians who practice within Mayo's command center and direct care

for patients admitted through multiple Mayo hospitals in Florida, Arizona, and Wisconsin.

“What we've created is essentially an ecosystem that enables us to deliver hospital-level care at home, providing most of the services that eligible patients would receive in the hospital.”

— Michael Maniaci, MD, Mayo Clinic

Dr. Maniaci notes that approximately 70 percent of patients who go to the hospital through the emergency department are treated and released; those who would benefit from continued clinical oversight are ideal candidates for hospital-at-home care. Other patients are admitted via hospitals' medical-surgical units.

In the Mayo model, started in 2020 to address the capacity-shortage issues the pandemic created, physicians rotate through the command center on a periodic basis. They work in tandem with nurses and advanced practice providers (APPs) and orchestrate the provision of services ranging from lab tests, imaging, and IV therapies to physical therapy and wound care, among others. Patients are equipped with computers and monitoring devices and a phone line that connects them directly to clinicians at the command center. As in inpatient models, the care team conducts rounds and loops in specialists as warranted. APPs, nurses, and paramedics, Dr. Maniaci explained, are the “boots on the ground.”

Laila Hakam, MD, a hospitalist and senior associate consultant at Mayo who helped establish the program and now devotes approximately two-thirds of her practice to hospital-at-home care, quickly became enamored of the model. “It's actually become another admitting arm for us, and we're finding that it retains a superior standard of care,” Dr. Hakam said. “It's proving a very collaborative approach, and we [physicians] find it's helpful that our virtual nurses are literally just a tap away.” Dr. Hakam and her colleagues appreciate the fact that the model gives them a view into home and the supports a patient has — or lacks. “It's contextual medicine practice, and I feel that I'm more available to my patients,” she said.

To date, more than 2,000 Mayo patients have been cared for in the hospital-at-home program, and volumes will increase as Mayo expands its program to incorporate a new STAT home-care program and other offerings.

Care models stress multidisciplinary, integrated approach

North Carolina-based Atrium Health, a large integrated system with 68 hospitals across four states, has been a forerunner in positioning physicians at the frontline of virtual, comprehensive home-based care. The program was established rapidly during the pandemic to accommodate urgent overcapacity issues and deliver care to COVID-19 patients. It has since evolved into a sophisticated permanent program that, to date, has treated more than 12,000 patients.

Today, a core group of eight full-time equivalent (FTE) hospitalists and the program's medical director work in tandem with APPs to oversee care in Atrium's Hospital at Home program. An additional 40 hospitalists have been trained and now rotate into the program as moonlighters on an as-needed or as-wanted basis.

Daniel Davis, MD, Atrium's senior medical director of continuing health, expects that number to expand rapidly in the next few years as the health system expands its patient capacity. It permits them to combine "brick-and-mortar" practice with virtual care — and develop a new skill set in the process. "It's been a great option for our physicians who have been working in the hospital for ten to 20 years."

"This is definitely an emerging practice area for physicians, and we're seeing a growing number of physicians who are interested in this hybrid practice model."

— Daniel Davis, MD, Atrium Health

In Atrium's model, physicians and nurses work from home rather than from a site-based hub, and clinicians engage in formal multidisciplinary teams. The team includes a "quarterback" physician who assesses referrals and oversees clinical operations. On a given day, a patient might receive imaging, infusion, and therapy services, and Atrium also provides meals when needed. Physicians "see" their patients at least once daily. Those video visits frequently incorporate virtual nurses, onsite paramedics, and family members in the same visit.

Dr. Davis acknowledges that, for physicians, there is a definite learning curve in adapting to the virtual care model and its team structure. "Taking a patient history via video can be challenging at first because it's a different

skill set. Physicians also must be very intentional about building relationships with other team members — and trusting them," Dr. Davis said.

Cleveland Clinic, a recent entrant, launched its Hospital Care at Home program in April 2023. Like Mayo, it utilizes a command-center hub, called the Clinically Integrated Virtual Care (CIViC) Center, as its base of operations. Two hospitalists conduct patient rounds and intakes, and five nurse managers provide active oversight and ensure that all services are delivered according to protocol. That physician team is likely to grow soon as Cleveland Clinic expands the model to encompass additional hospitals.

"We're seeing a lot of interest among physicians and nurses who want to join the program," said Richard Rothman, MD, chief of medical operations for Cleveland Clinic in Florida. "In hospital medicine in general, there is a general perspective among physicians that the way we deliver care today isn't the way we'll deliver it tomorrow. We're learning as we go."

What's in it for physicians?

Even though it's early days, Mayo, Atrium Health, and Cleveland Clinic are receiving positive reviews from physicians practicing in their hospital-at-home care models. "Our hospitalists are seeing the value of the program for both patients and physicians," Dr. Rothman said. "The hospitalists find that they're having more direct interaction with their patients than they might in the inpatient setting, and that it's easier to incorporate families in discussions about care using the video model."

"In hospital medicine in general, there's a general perspective among physicians that the way we deliver care today isn't the way we'll deliver it tomorrow. We're learning as we go."

— Richard Rothman, MD, Cleveland Clinic

Although there is no formal supporting data to date, Dr. Rothman is optimistic and hopeful that providing hospitalists with care-setting alternatives via the hybrid care model may help reduce the burnout with which many physicians struggle today.

From a career-option standpoint, hospital-at-home practice is best suited to physicians who have at least three to five years of hospital-based practice experience. That is important, all sources concurred, because physicians

must first be deeply familiar with hospital care systems before they attempt to safely replicate comprehensive care in the home setting. “Physicians probably need three to five years of experience in brick-and-mortar work before they transition to a virtual model,” said Dr. Davis. “They have to learn what a sick patient looks like,” he said, to determine appropriate care plans and decide when interventions are needed.

Irene Rahman-Garcia, MD, an early-career hospitalist who is helping Cleveland Clinic expand its hospital-at-home program, cites a practice benefit some hospitalists are reporting: improved patient compliance with prescribed treatment and services. “We’re seeing that patients seem to be more comfortable and peaceful receiving their care at home, where they can be with their family or caregivers and their pets,” she said. “Hospitalists get to witness that transition and see the benefits — that the home environment is better for some patients.”

Dr. Maniaci hears a similar story from his hospital-at-home physicians. They report that communicating with patients in their home environment helps physicians get to know their patients better. Physicians also appreciate the technological infrastructure and ability to get orders managed expediently. “Our younger, tech-savvy physicians jumped right in when we started the program,” he said, and are excited about the sophistication of the care model.

At Atrium Health, hospitalists have been impressed with the efficiency of hospital-at-home care. Initial skeptics have become converts over time, according to Kara Gallagher, MD, a family physician who has practiced full-time in the program for two years and now trains and mentors newcomers. She noted that many physicians are surprised by the level of care provided in a home setting and how comprehensive it truly is.

“Our hospitalists are impressed with the magnitude and scope of what we can offer patients at home. It’s not like babysitting a patient at home — it’s comprehensive care, and that surprises the physicians initially.”


— Kara Gallagher, MD, Atrium Health

Boston Medical Center, which introduced its hospitalist-staffed hospital-at-home program in April 2024, is already witnessing benefits for its physicians and patients, according to Fitzgerald Shepherd, MD, the program’s

medical director. “What we’re hearing from physicians is that seeing patients in their home setting gives them a new dimension into patient care — seeing what happens when a patient goes home from the hospital and the social issues that may impact care,” he said, has proved instructive for our hospitalists,” Dr. Shepherd said. “Some of our physicians think that [the care model] will help reduce burnout among doctors and nurses.” In addition, because the hospital-at-home physicians are physically co-located with nurses, relationships between the two groups, anecdotally, appear to be strengthening, Dr. Shepherd said.

All the programs featured in this article are seeing good results on the all-important measures of patient safety and how patients fare from an outcomes standpoint. Although data are still being gathered, early experience suggests that emergency department visits and hospital readmissions are down and that relatively stable patients appreciate the option of getting their care at home. Colleen Hole, BSN, MHA, who helped Atrium found its hospital-at-home program, said that the ability to provide patients with a “soft landing” at home has lowered ED visits and readmissions, as well as referrals to skilled nursing facilities. “This model has mitigated a lot of the risk,” she said, for suboptimal outcomes, which in turn is a relief to physicians. “The hospital-at-home is now truly part of the care continuum.”

One observation made by all the sources interviewed for this article is that patients perceive the hospital-at-home services as more attentive and coordinated care rather than “remote” care. “Patients often say that they feel they spent more time with clinical staff at home than when they were in the hospital,” said Dr. Davis, “and our physicians appreciate how holistic the care model is.”

 Did you find this article helpful? Sign up for our Career Resources Update e-newsletter to get more physician career articles delivered right to your inbox! www.nejmcareercenter.org/register.



Unusual Parts of Compensation Packages

By Nisha Mehta, MD, a physician leader whose work focuses on physician empowerment, community building, and career longevity in medicine

In speaking to so many about their job offers, I've realized that we're often myopic in terms of what we think can be negotiated when discussing a contract. There are the traditional things everyone asks about — salary, bonus structure, call responsibilities, vacation schedule, and signing bonuses, to name a few. However, when talking to people about what their ideal job looks like, there's often more random things on a wish list. What we fail to realize is that those are all things that can be asked for, but that nobody else would even think to offer them to sweeten the deal.

Some examples of these?

- An early start and end to the day
- Dedicated academic or administrative time
- Unique FTEs such as 0.7 or unique structuring of their FTEs, such as alternating four- and two-day weeks
- Bonuses for creation of alternative revenue streams for the practice
- Changes in the amount of allotted CME money or money for office furnishings or technology

- The ability to work from home a certain number of days a week (for example, doing telehealth)
- A specified patient population according to their area of academic interest/desired practice panel
- An increased number of support staff such as scribes or medical assistants
- The speaker system which you will have in your operating room

Some of these may sound silly to you to ask for, but I know of physicians who have asked for and received these things as part of their contract negotiations. Remember, what brings happiness in your day-to-day life as a physician is very individualized, and therefore, asking for those things that will enhance your satisfaction (e.g., career longevity) at that job is not unreasonable.

Of course, asking for these things can be an art form. Understand that every institution has different flexibility or bandwidth for accommodating individual requests. You may want to look at what other accommodations have been made for other physicians on staff as precedent for what may be realistic prior to compiling your list of asks. Also, be careful about how many of these additional things you ask for. If you have 10 unusual requests, even if they are relatively minor, the message to the employer could be that this is a pattern of behavior where you will always be asking for exceptions to normal operating procedures.

Figure out which ones mean the most to you. Also figure out which ones are going to be harder to negotiate later, as your negotiating power is always greatest before you sign a contract. Be prepared to justify the asks so they understand why they would make accommodations. For example, if you are able to clearly articulate why something will lead to increased efficiency, lead to better patient outcomes, or contribute to your career longevity and prevent burnout, this would help your case. It would also help them to explain to others who question why these special accommodations were granted.

As demographics in medicine change, unusual asks will become more frequent. The sustainability of our health care workforce requires out-of-the-box solutions, and for some of you, these may be part of them! If you don't ask, you won't get it.

Did you find this article helpful? Sign up for our Career Resources Update e-newsletter to get more physician career articles delivered right to your inbox!
www.nejmcareercenter.org/register.



Jobs for you, right to your inbox.
Sign up for FREE physician job alerts today!

It's quick and easy to set up and can give you a valuable edge in finding your next job. Simply set your specialty and location and we'll automatically send you new jobs that match your criteria.

Get started now at: nejmcareercenter.org/newalert



CLINICAL PRACTICE

Infertility Evaluation and Treatment

Nanette Santoro, M.D.,^{1,2} and Alex J. Polotsky, M.D.^{1,2}

This Journal feature begins with a case vignette highlighting a common clinical problem. Evidence supporting various strategies is then presented, followed by a review of formal guidelines, when they exist. The article ends with the authors' clinical recommendations.

A couple presents after 1 year without conception despite having had sexual intercourse 2 or 3 times per week. The 36-year-old female partner has menses (lasting 3 to 5 days) every 26 to 30 days. Neither partner has active medical problems; both are taking vitamins aimed at supporting fertility. They would like to have three children. How would you evaluate and treat this couple?

Author affiliations are listed at the end of the article. Dr. Santoro can be contacted at nanette.santoro@cuanschutz.edu or at the University of Colorado School of Medicine, 12631 E. 17th Ave., Aurora, CO 80045.

N Engl J Med 2025;392:1111-9.
DOI: 10.1056/NEJMcp2311150
Copyright © 2025 Massachusetts Medical Society.

THE CLINICAL PROBLEM

PRIMARY INFERTILITY IS DEFINED AS A HISTORY OF NO PREVIOUS CONCEPTION, and secondary infertility is an inability to conceive after any previously documented pregnancy. As defined by the American Society for Reproductive Medicine (ASRM), any need for reproductive technology in order to conceive is meant to be inclusive of same-sex couples, single parents by choice, persons who want to freeze oocytes, and transgender persons.¹

Assisted conception accounts for 5% of U.S. births.² Although in vitro fertilization (IVF) was invented to circumvent blockage of the fallopian tubes, the expected live birth rate with IVF per round of treatment exceeds that of a couple with normal fertility in any given cycle and surpasses all other treatments to obtain a live birth (Table 1). This degree of efficacy has led to the use of IVF for the treatment of infertility due to almost any cause. However, fertility treatment is expensive in the United States, and insurance coverage is inconsistent, factors that lead to inequitable access. Only 21 states mandate partial or complete insurance coverage. Regardless of access, Black, Hispanic, and Asian persons have lower live birth rates than White persons with most treatments, particularly IVF.³

CME



STRATEGIES AND EVIDENCE

HISTORY AND EXAMINATION

A comprehensive evaluation includes a detailed menstrual history and assessment of risks for anatomical infertility, such as previous pelvic surgery or infection. Medications that are potentially hazardous for pregnancy or conception (e.g., retinoids, methotrexate, and lithium) should be reviewed for replacement with appropriate alternatives. A history of testicular injury or undescended testes should be obtained, along with an assessment for androgenic steroid use, which is increasingly common among U.S. men 18 to 45 years of age.⁴ An evaluation should focus on clinical information relevant to common causes of infertility: extremes of weight, signs and symptoms of polycystic ovary syndrome (PCOS; e.g., hirsutism, acanthosis nigricans, and oligomenorrhea), premature ovarian insufficiency (e.g., night sweats), hyperprolactinemia (e.g., galactorrhea), and other possible endocrine

KEY POINTS

INFERTILITY EVALUATION AND TREATMENT

- The age of the childbearing female partner is the most important predictor of live birth with natural conception as well as with assisted conception.
- The probability of live birth with a single cycle of in vitro fertilization therapy exceeds the monthly fecundability of natural conception, thereby leading to its dominant role in fertility treatment.
- At least one third of infertility cases are due to male reproductive issues that could be effectively managed with assisted conception.
- An evaluation should focus on clinical information relevant to common causes of infertility: extremes of weight, signs and symptoms of polycystic ovary syndrome, and other possible endocrine disturbances.

disturbances (e.g., hypothyroidism, type 2 diabetes, and hypogonadism). A single abnormality, if found, should not be assumed to wholly explain a couple’s infertility. Complete testing of both partners is recommended in most cases. Patients’ intentions with regard to their hoped-for family size and potential consideration of donor gametes or embryos can inform longer-term therapeutic options.

RECOMMENDED ROUTINE TESTING

Semen Analysis

Semen analysis is recommended and should be repeated if the results of the first analysis are outside the normal range.⁵ An abnormal semen characteristic (e.g., low sperm concentration, sperm dysmotility, or abnormal morphologic features) is detected in approximately one third of couples with infertility (Table 1). In cases of a varicocele, fertilization failure, poor embryo development after IVF, or recurrent pregnancy loss, an assessment of sperm DNA fragmentation may inform a recommendation for the use of donor gametes.⁶

Ovarian-Reserve Testing

The age of the childbearing female partner is the most important predictor of live birth, regardless of ovarian reserve.⁷ However, evaluation of ovarian reserve should be undertaken regardless of age. A combination of ultrasonography and serum markers assess both visible and implied numbers of ovarian follicles as well as the likely response to gonadotropins. The number of all follicles 2 mm to 10 mm in diameter (measured with the use of ultrasonography) in both ovaries determines the antral follicle count.⁸ Antimüllerian hormone, which is not dependent on the stage of the menstrual cycle, is produced by the granulosa cells of early-developing follicles and is the most direct

serum biomarker that quantifies the relative pool of primordial ovarian follicles.⁹ Measurement of the levels of follicle-stimulating hormone (FSH) and estradiol in the early follicular phase (menstrual cycle days 2 to 4, when FSH is typically at its follicular-phase peak) provides indirect information about ovarian reserve. Because more FSH is required to cause follicular maturity as ovarian reserves dwindle, the follicular phase shortens with earlier elevation of estradiol. Therefore, elevated levels of FSH and estradiol indicate decreased ovarian reserve. Adequate ovarian reserve thresholds are shown by an antral follicle count of at least 12, a level of antimüllerian hormone greater than 1 ng per milliliter, an FSH level of less than 10 IU per liter, and an estradiol level of less than 80 pg per milliliter. Decreased ovarian reserve is observed in approximately 26% of patients presenting to IVF centers in the United States.¹⁰ Patients with decreased ovarian reserve are usually directed toward more aggressive treatment because the course of progression to ovarian failure in such patients is unpredictable and may be rapid. Very high levels of antimüllerian hormone (greater than approximately 6 ng per milliliter¹¹) or antral follicle counts (greater than 25¹²) indicate the presence of PCOS and predict a strong response to ovarian stimulation.

Ovulatory Evaluation

Release of a viable egg is mandatory for conception. Women reporting monthly menses every 28 days are presumed to be ovulatory, and routine confirmation of ovulation is not necessary.¹³ Premenstrual symptoms such as breast tenderness and abdominal bloating are supportive of ovulation. Home urine testing for the midcycle luteinizing hormone (LH) surge is widely available, and a positive surge result approximately 14 days

Table 1. Infertility Causes, Prevalence, and Management Approaches.*

Cause	Prevalence	Treatment Option (Reported Outcome per Treatment Cycle)
	%	
Ovulatory dysfunction	25 ¹⁵ †	Induction of ovulation (live birth, 35.4%) ³⁸
Polycystic ovarian syndrome	8–13 ¹⁹ ‡	Letrozole ²¹ (live birth, cumulative for up to five cycles, 27.5%) Clomiphene (live birth, cumulative for up to five cycles, 19.1%)
Functional hypothalamic amenorrhea	1 ²⁵ ‡	Cognitive behavioral therapy ²⁴ (NA) Clomiphene (NA)§ Gonadotropin (NA)
Premature ovarian insufficiency	1 ²⁶ ‡	Oocyte donation (live birth, 39.0%) ³⁸
Diminished ovarian reserve ¹⁰	19–26 ¹⁰ †	IVF (live birth, 19.9%) ³⁸
Uterine factor	2–17 ³³ †	Individualized (NA)
Fallopian tube patency ^{30¶}	11–67 ⁴⁶ †	IVF (live birth, 38.1%) ^{30,38} Hydrosalpinx removal ³⁰ (odds ratio for clinical pregnancy, 4.66; 95% CI, 2.47 to 10.01)
Endometriosis	25–50 ³⁴	IVF (live birth, 39.5%) ³⁸
Abnormal semen characteristics	5–40 ¹⁵	IUI (NA) IVF (live birth, 40.8%) ³⁸
Unexplained infertility**	15	IUI with clomiphene ³⁶ (live birth, 23.3%) IUI with letrozole ³⁶ (live birth, 18.7%) IUI with gonadotropin ³⁶ (live birth, cumulative for up to four cycles, 32.2%) IVF (live birth, 39.9%) ³⁸

* Live birth rate is reported by the Society for Assisted Reproductive Technology as live births per initiated stimulation cycle in women younger than 35 years of age or for all donor oocyte cycles initiated.³⁸ IUI denotes intrauterine insemination, IVF in vitro fertilization, and NA insufficient data to report outcomes.

† Shown is the prevalence among couples with infertility.

‡ Shown is the population prevalence of the disorder.

§ Clomiphene may be considered for treatment in women with functional hypothalamic amenorrhea if the patient’s initial estradiol level does not indicate complete suppression of the hypothalamic pituitary axis.

¶ Prevalence varies widely depending on the population.

|| The prevalence of endometriosis among adults in the U.S. population is 10 to 15%.³⁴

** Multiple gestation occurred in 13% of gestations with letrozole, 9% with clomiphene, and 32% with gonadotropin. There were 10 triplet gestations, all in patients who were treated with gonadotropin.

before menses is confirmatory, as is a midluteal (7 days before expected menses) serum progesterone level of 3 ng per milliliter or higher.¹⁴ Absence of menses, infrequent menses, or inadequate progesterone production indicate oligo-ovulation or anovulation. Testing for hyperprolactinemia, PCOS (levels of androgens and 17-hydroxyprogesterone and the LH:FSH ratio), congenital adrenal hyperplasia (level of 17 hydroxyprogesterone), hypogonadotropic amenorrhea (levels of LH, FSH, and estradiol), or premature ovarian insufficiency (levels of FSH and estradiol) are indicated depending on the clinical presentation. Further testing specific to each condition may also be indicated (e.g., metabolic assessment for women with

PCOS, psychosocial assessment for women with hypothalamic amenorrhea, and genetic and autoimmune workups for women with premature ovarian insufficiency).

Evaluation of the Fallopian Tubes and Uterus

Anatomical abnormalities (e.g., fallopian tube occlusion, pelvic adhesions, and other tubal abnormalities) accounted for up to 34% of infertility factors in women in one large World Health Organization study of 8500 couples with infertility.¹⁵ Hysterosalpingography and sonohysterography with or without a saline-air device are noninvasive techniques that have largely supplanted laparoscopy to determine tubal patency as well as intrauterine

fibroids, polyps, and adhesions.¹⁶ Both methods involve retrograde instillation of either radiologic contrast (hysterosalpingography) or saline and air (ultrasonography-based methods) to separate the uterine walls and push fluid through the fallopian tubes, which allows visualization of the uterine cavity and tubal patency.

TREATMENT

TREATMENT OF INFERTILITY ATTRIBUTABLE TO THE MALE PARTNER

A variety of products (devices and supplements) have been suggested to improve semen quality; however, none, including vitamins, have sufficient evidence to warrant their use.¹⁷ With regard to varicoceles, no clinical trial evidence has shown that surgical treatment improves fertility.

Most treatments of male infertility involve the mechanical manipulation of semen by means of suspending a sperm concentrate in culture medium and injecting it into the uterine fundus at the time of ovulation (intrauterine insemination [IUI]), placing sperm directly onto oocytes in vitro, or mobilizing a single sperm cell and injecting it directly into an oocyte during IVF (intracytoplasmic sperm injection).

Couples in which the male partner has abnormally low motile sperm counts are candidates for IUI. For motile sperm counts below the range of 1 million to 5 million, IVF with direct sperm injection is the treatment of choice. Despite increased use of this technique to ensure against fertilization failure, a cohort study of more than 300,000 IVF cycles showed lower rates of implantation and live birth when intracytoplasmic sperm injection was performed for indications other than severe male infertility.¹⁸

TREATMENT OF OVULATORY DISORDERS

Although IVF is the most successful treatment option for almost all ovulatory disorders, whether to try ovulation induction or stimulation strategies first merits consideration because of the associated cost and invasiveness of IVF (Table 1). PCOS, the most common endocrinopathy in women, affects 6 to 13% of women of reproductive age worldwide.¹⁹ A secondary analysis of randomized trials involving women with PCOS and obesity showed that deferred ovulation induction preceded by lifestyle interventions and hormonal contraception resulted in significantly more

ovulation than immediate ovulation induction (with 62% vs. 45% of treatment cycles leading to ovulation).²⁰ Letrozole was more effective than clomiphene for ovulation induction and live birth in women with PCOS (Table 1).²¹ Although helpful for preventing type 2 diabetes, metformin led to fewer 6-month cumulative live births (in 7.2% of the women who received it) than clomiphene (in 22.7%) in a large, U.S. network-based clinical trial.²² IVF is a favorable second-line option for women with PCOS, because their increased number of ovarian follicles usually leads to highly productive egg harvesting. A Cochrane Review of 13 randomized clinical trials involving 1132 persons did not show a benefit in live births with concurrent metformin treatment during an IVF cycle.²³

Other common ovulatory disorders that cause amenorrhea include functional hypothalamic amenorrhea (in 1% of women with amenorrhea^{24,25}), premature ovarian insufficiency (in 1%²⁶), and prolactinoma (in 0.3%²⁷). Management of hypothalamic amenorrhea includes cognitive behavioral therapy to help address causal stressors such as low body weight or low body fat, psychogenic stress, negative energy balance, and excess exercise. Gonadotropin injections can also be used to induce ovulation. Pregnancy rates approach normal ranges when ovulatory function is reestablished.²⁴ Premature ovarian insufficiency is not reversible; when prolonged amenorrhea is observed, pregnancy is unlikely, regardless of treatment. Prolactinomas in women are usually responsive to medical management with dopamine agonists (cabergoline or bromocriptine); live birth rates as high as 94% have been reported once prolactin levels normalize.²⁸

TREATMENT OF TUBAL AND UTERINE FACTORS

Women with fallopian tube occlusion or removal need IVF therapy to conceive. If a hydrosalpinx is present, removal or complete occlusion of the affected tube, treatment with antibiotic agents, or aspiration is recommended. Findings from retrospective studies and limited data from randomized clinical trials support this practice. In one study involving 192 women, live births occurred in 28.6% of the women who were randomly assigned to undergo hydrosalpinx removal, as compared with 16.3% (P=0.045) of the women who received no intervention.²⁹ A Cochrane Review reported data from five clinical trials involving

626 women that supported the benefit of hydrosalpinx removal on pregnancy rates, but the report noted that the trials produced limited data with regard to live births and the value of drainage or occlusion.³⁰ Given the effectiveness of IVF in producing live births, the need for hydrosalpinx removal has been questioned.

Among uterine disorders, septa (estimated prevalence, 0.2 to 2.3%) are often found during the fertility workup. Septum excision has been recommended in patients with a history of pregnancy loss, in the belief that the relatively avascular septum surface constitutes a poor implantation site. However, a randomized, international, multicenter clinical trial that compared septum removal with expectant management in women with previous pregnancy loss showed no benefit with septum resection.³¹ Other uterine causes of infertility, such as fibroids and synechiae, are managed on the basis of the signs and symptoms specific to the patient. Surgical management of asymptomatic fibroids remains controversial, and treatment is currently individualized.³² Uterine lesions are typically treated with outpatient hysteroscopic resection.³³

TREATMENT OF ENDOMETRIOSIS

Although the estimated prevalence of endometriosis is 2 to 10% among all women, it is found in 25 to 50% of women with infertility.³⁴ When endometriosis is diagnosed, surgical excision or fulguration, followed by expectant management, is preferred.³⁵ However, since routine laparoscopy is no longer part of the infertility workup, occult endometriosis may be present. Because of the invasive and inflammatory nature of ovarian endometriosis, this disorder can reduce ovarian reserve and cause pelvic adhesions and tubal occlusions that further compromise fertility. IVF is often the preferred treatment to hasten time to pregnancy in women with severe endometriosis. However, in mild disease in which cytoreductive surgery has been performed and symptoms have not recurred, management is more consistent with that of unexplained infertility.³⁵

TREATMENT OF UNEXPLAINED INFERTILITY

By definition, unexplained infertility is present when a complete workup fails to yield a cause. A stepwise approach to treatment, beginning with mild ovarian stimulation combined with IUI, is typically performed for up to 4 to 6 cycles.

Clomiphene is the treatment of choice on the basis of a multicenter clinical trial evaluating the use of clomiphene, letrozole, or gonadotropins along with IUI in 900 couples with unexplained infertility (Table 1). The higher live birth rate with gonadotropin–IUI treatment in this trial was offset by its unacceptably high incidence of multiple pregnancy (32% of pregnancies) as compared with clomiphene (13%) and letrozole (9%).³⁶ A separate randomized trial evaluating time to pregnancy and overall cost found no benefit of performing gonadotropin–IUI before IVF if a trial of clomiphene did not result in a live birth.³⁷

IN VITRO FERTILIZATION

In 1978, the year of the first live birth of a baby conceived through the use of IVF, the probability of a successful live birth as a result of IVF was less than 10%. In 2021, women younger than 35 years of age had a 43.1% probability of live birth from a single IVF attempt (Table 1)³⁸; outcomes were worse with increasing age (31.0% for women 35 to 37 years of age, 19.0% for those 38 to 40 years of age, 9.4% for those 41 to 42 years of age, and 3.2% for those older than 42 years of age).

The process of an IVF cycle is shown in Figure 1. Exogenous gonadotropin stimulation is combined with suppression of the hypothalamic–pituitary axis with a gonadotropin-releasing hormone (GnRH) antagonist or, less frequently, an agonist to prevent an endogenous LH surge and override the body’s natural system of avoiding multiple folliculogenesis. After stimulation for approximately 10 days, the final stages of oocyte maturation are initiated with human chorionic gonadotropin (HCG) or an GnRH agonist (or both), with the latter used to provide a shorter-acting burst of endogenous LH. Before oocytes are extruded, they are retrieved by means of needle aspiration guided by transvaginal ultrasonography and inseminated either by overlaying of concentrated sperm or by direct oocyte injection. Fertilized oocytes are grown in vitro for 5 days, by which time they have reached the blastocyst stage and are ready for uterine transfer. Embryo transfer can be performed at this time, but concern about supraphysiologic hormone exposure of the uterus has led to embryo transfers more commonly being performed after cryopreservation and thawing of the embryo. Cryopreservation and thawing allows the female partner time to recover from the oocyte retrieval

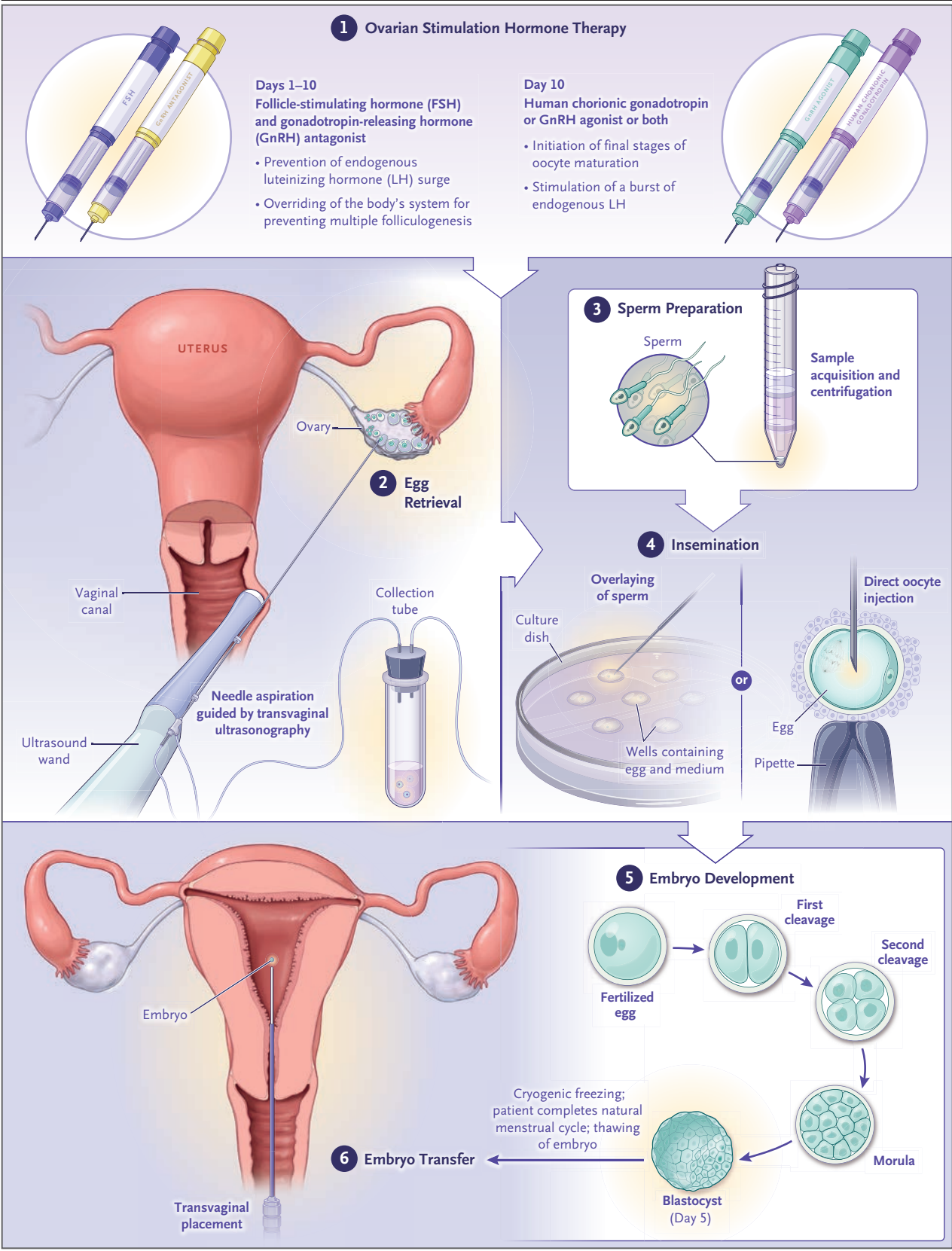


Figure 1 (facing page). Process of IVF.

procedure and to undergo either a natural menstrual cycle, wherein the embryo is implanted after ovulation occurs spontaneously, or a programmed cycle, in which the uterus is primed with exogenous estradiol and progesterone before embryo transfer.

Risks associated with IVF include ovarian hyperstimulation syndrome and multiple births. Ovarian hyperstimulation syndrome occurs with prolonged exposure to LH or HCG in susceptible persons when estradiol levels are extremely high. It can largely be avoided by adjusting the gonadotropin dose, cancelling and restarting the cycle at a lower dose if the response is too great, avoiding a “fresh” embryo transfer (rather than a transfer of the embryo after cryopreservation and thawing) if the estradiol level is too high, using lower doses of HCG to complete follicle maturation, and triggering final follicle maturation with a GnRH agonist to induce a burst of LH, which has a shorter half-life than HCG. Complications related to egg harvesting are rare (occurring in 1 in 1000 procedures) and include bleeding or trauma to the ovary or adjacent organs (or both) due to misplacement of the needle.

Multiple births resulting from IVF, an early concern with the technology, have decreased dramatically with the ability to grow embryos in vitro for 5 to 7 days. By this stage of development, embryo viability is so robust that transfer of a single embryo results in excellent live birth rates. In 2022, a total of 73.9% of all IVF cycles reported to the Society for Assisted Reproductive Technology involved the transfer of a single embryo, with an overall multiple pregnancy rate of 4% and almost no triplet pregnancies.³⁸

GUIDELINES

Practice guidelines published by ASRM and the European Society for Human Reproduction and Embryology (ESHRE), among others, address the various types of infertility.³⁹ Some notable differences exist that may reflect regional policy considerations. For example, ASRM recommends routine initial testing for ovarian reserve,⁴⁰ but ESHRE does not recommend this approach in

women with regular menses.⁴¹ Our recommendations align with those of ASRM.

AREAS OF UNCERTAINTY

More evidence is needed with regard to the effects on fertility of endocrine-disrupting chemicals. The role of preimplantation genetic testing in IVF practice remains a subject of debate.⁴² Although this testing may reduce the time to live birth, it risks the discarding of embryos that might otherwise be viable; because euploid cells develop more rapidly than aneuploid cells, embryos with aneuploid cell lines may outgrow the aneuploidy.⁴³

The value of performing a fresh or natural cycle embryo transfer as compared with an artificial cycle in which exogenous estrogen is provided in physiologic amounts is of interest, because the risk of hypertensive disorders of pregnancy may be increased in the absence of a corpus luteum.⁴⁴ Finally, premature ovarian insufficiency and its precursor, decreased ovarian reserve, remain a barrier to pregnancy that is difficult to overcome with the use of current methods. The effects of supplying growth factors or stem cells to ovaries with limited remaining follicles are areas of active investigation.⁴⁵

CONCLUSIONS AND RECOMMENDATIONS

Regarding the couple described in the vignette, the negative evaluation is diagnostic of unexplained infertility. Because they hope to have three children, we recommended IVF with storage of cryopreserved embryos for future use. Their IVF procedure resulted in 13 oocytes, 9 of which were fertilized and 6 of which became healthy blastocysts. One blastocyst was implanted during an IVF cycle, and a baby boy was born. We advised the couple to return 18 months after their son’s birth to plan for implantation of one of the 5 remaining cryopreserved embryos. Their excellent yield of high-quality embryos makes it likely that this couple will achieve their desired family size.

Disclosure forms provided by the authors are available with the full text of this article at NEJM.org.

AUTHOR INFORMATION

¹ Department of Obstetrics and Gynecology, University of Colorado, Aurora, CO; ² Shady Grove Fertility, Greenwood Village, CO.

REFERENCES

1. Practice Committee of the American Society for Reproductive Medicine. Definitions of infertility and recurrent pregnancy loss: a committee opinion. *Fertil Steril* 2020;113:533-5.

2. Sunderam S, Kissin DM, Zhang Y, et al. Assisted reproductive technology surveillance — United States, 2018. *MMWR Surveill Summ* 2022;71:1-19.

3. Jackson-Bey T, Morris J, Jasper E, et al. Systematic review of racial and ethnic disparities in reproductive endocrinology and infertility: where do we stand today? *F&S Reviews* 2021;2:169-88 ([https://www.fertstertreviews.org/article/S2666-5719\(21\)00011-6/abstract](https://www.fertstertreviews.org/article/S2666-5719(21)00011-6/abstract)).

4. Rao PK, Boulet SL, Mehta A, et al. Trends in testosterone replacement therapy use from 2003 to 2013 among reproductive-age men in the United States. *J Urol* 2017; 197:1121-6.

5. Cooper TG, Noonan E, von Eckardstein S, et al. World Health Organization reference values for human semen characteristics. *Hum Reprod Update* 2010;16:231-45.

6. Ford WC, North K, Taylor H, Farrow A, Hull MG, Golding J. Increasing paternal age is associated with delayed conception in a large population of fertile couples: evidence for declining fecundity in older men. *Hum Reprod* 2000;15:1703-8.

7. Scheffer JB, Scheffer BB, de Carvalho RF, Rodrigues J, Grynberg M, Mendez Lozano DH. Age as a predictor of embryo quality regardless of the quantitative ovarian response. *Int J Fertil Steril* 2017;11:40-6.

8. Tal R, Seifer DB. Ovarian reserve testing: a user's guide. *Am J Obstet Gynecol* 2017;217:129-40.

9. Seifer DB, Baker VL, Leader B. Age-specific serum anti-Müllerian hormone values for 17,120 women presenting to fertility centers within the United States. *Fertil Steril* 2011;95:747-50.

10. Devine K, Mumford SL, Wu M, DeCherney AH, Hill MJ, Propst A. Diminished ovarian reserve in the United States assisted reproductive technology population: diagnostic trends among 181,536 cycles from the Society for Assisted Reproductive Technology Clinic Outcomes Reporting System. *Fertil Steril* 2015; 104(3):612-619.e3.

11. Timur HT, Cimrin D, Gursoy Doruk O, Dogan OE. Determining the age group-based cut-off values of serum anti-Müllerian hormone concentrations to diagnose polycystic ovary syndrome. *Curr Med Res Opin* 2023;39:855-63.

12. Dewailly D, Lujan ME, Carmina E, et al. Definition and significance of polycystic ovarian morphology: a task force report from the Androgen Excess and Polycystic Ovary Syndrome Society. *Hum Reprod Update* 2014;20:334-52.

13. DeVilbiss EA, Sjaarda LA, Mumford SL. Routine assessment of ovulation is unlikely to be medically necessary among eumenorrheic women. *Fertil Steril* 2020; 114:1187-8.

14. Chinta P, Rebekah G, T Kunjummen A, S Kamath M. Revisiting the role of serum progesterone as a test of ovulation in eumenorrheic subfertile women: a prospective diagnostic accuracy study. *Fertil Steril* 2020;114:1315-21.

15. Recent advances in medically assisted conception: report of a WHO Scientific Group. *World Health Organ Tech Rep Ser* 1992;820:1-111.

16. Christianson MS, Legro RS, Jin S, et al. Comparison of sonohysterography to hysterosalpingogram for tubal patency assessment in a multicenter fertility treatment trial among women with polycystic ovary syndrome. *J Assist Reprod Genet* 2018;35:2173-80.

17. Steiner AZ, Hansen KR, Barnhart KT, et al. The effect of antioxidants on male factor infertility: the Males, Antioxidants, and Infertility (MOXI) randomized clinical trial. *Fertil Steril* 2020; 113(3):552-560.e3.

18. Boulet SL, Mehta A, Kissin DM, Warner L, Kawwass JF, Jamieson DJ. Trends in use of and reproductive outcomes associated with intracytoplasmic sperm injection. *JAMA* 2015;313:255-63.

19. World Health Organization. Polycystic ovary syndrome. February 7, 2025 (<https://www.who.int/news-room/fact-sheets/detail/polycystic-ovary-syndrome#:~:text=The%20condition%20affects%20an%20estimated,particular%20related%20to%20metabolic%20problems>).

20. Legro RS, Dodson WC, Kunselman AR, et al. Benefit of delayed fertility therapy with preconception weight loss over immediate therapy in obese women with PCOS. *J Clin Endocrinol Metab* 2016;101: 2658-66.

21. Legro RS, Brzyski RG, Diamond MP, et al. Letrozole versus clomiphene for infertility in the polycystic ovary syndrome. *N Engl J Med* 2014;371:119-29.

22. Legro RS, Barnhart HX, Schlaff WD, et al. Clomiphene, metformin, or both for infertility in the polycystic ovary syndrome. *N Engl J Med* 2007;356:551-66.

23. Tso LO, Costello MF, Albuquerque LET, Andriolo RB, Macedo CR. Metformin treatment before and during IVF or ICSI in women with polycystic ovary syndrome. *Cochrane Database Syst Rev* 2020; 12(12):CD006105.

24. Gordon CM, Ackerman KE, Berga SL, et al. Functional hypothalamic amenorrhea: an Endocrine Society clinical practice guideline. *J Clin Endocrinol Metab* 2017;102:1413-39.

25. Meczekalski B, Katulski K, Czyzyk A, Podfigurna-Stopa A, Maciejewska-Jeske M. Functional hypothalamic amenorrhea and its influence on women's health. *J Endocrinol Invest* 2014;37:1049-56.

26. Luborsky JL, Meyer P, Sowers MF, Gold EB, Santoro N. Premature menopause in a multi-ethnic population study of the menopause transition. *Hum Reprod* 2003; 18:199-206.

27. Yataavelli RKR, Bhusal K. Prolactinoma. In: *StatPearls*. Treasure Island, FL: StatPearls Publishing, 2023.

28. Ono M, Miki N, Amano K, et al. Individualized high-dose cabergoline therapy for hyperprolactinemic infertility in women with micro- and macroprolactinomas. *J Clin Endocrinol Metab* 2010;95: 2672-9.

29. Strandell A, Lindhard A, Waldenström U, Thorburn J, Janson PO, Hamberger L. Hydrosalpinx and IVF outcome: a prospective, randomized multicentre trial in Scandinavia on salpingectomy prior to IVF. *Hum Reprod* 1999;14:2762-9.

30. Johnson N, van Voorst S, Sowter MC, Strandell A, Mol BW. Surgical treatment for tubal disease in women due to undergo in vitro fertilisation. *Cochrane Database Syst Rev* 2010;2010(1):CD002125.

31. Rikken JFW, Kowalik CR, Emanuel MH, et al. Septum resection versus expectant management in women with a septate uterus: an international multicentre open-label randomized controlled trial. *Hum Reprod* 2021;36:1260-7.

32. Practice Committee of the American Society for Reproductive Medicine. Removal of myomas in asymptomatic patients to improve fertility and/or reduce miscarriage rate: a guideline. *Fertil Steril* 2017;108:416-25.

33. Sallée C, Margueritte F, Marquet P, et al. Uterine factor infertility, a systematic review. *J Clin Med* 2022;11:4907.

34. Macer ML, Taylor HS. Endometriosis and infertility: a review of the pathogenesis and treatment of endometriosis-associated infertility. *Obstet Gynecol Clin North Am* 2012;39:535-49.

35. European Society of Human Reproduction and Embryology. ESHRE guideline endometriosis. February 2, 2022 (<https://www.eshre.eu/Guideline/Endometriosis>).

36. Diamond MP, Legro RS, Coutifaris C, et al. Letrozole, gonadotropin, or clomiphene for unexplained infertility. *N Engl J Med* 2015;373:1230-40.

37. Reindollar RH, Regan MM, Neumann PJ, et al. A randomized clinical trial to evaluate optimal treatment for unexplained infertility: the fast track and standard treatment (FASTT) trial. *Fertil Steril* 2010;94:888-99.

38. Society for Assisted Reproductive Technology. Preliminary National Summary Report for 2022 (<https://sartcorsonline.com/CSR/PublicSnapshotReport?ClinicPKID=&reportingYear=2022>).

39. UpToDate. Society guideline links: female infertility. 2025 (<https://www.uptodate.com/contents/society-guideline-links-female-infertility/print>).

40. Practice Committee of the American Society for Reproductive Medicine. Fertility evaluation of infertile women: a committee opinion. *Fertil Steril* 2021;116: 1255-65.

41. Romualdi D, Ata B, Bhattacharya S, et

al. Evidence-based guideline: unexplained infertility. *Hum Reprod* 2023;38:1881-90.

42. Morales C. Current applications and controversies in preimplantation genetic testing for aneuploidies (PGT-A) in in vitro fertilization. *Reprod Sci* 2024;31:66-80.

43. Santoro N, Luu TH, Nel-Themaat L. Preimplantation genetic diagnosis in assisted reproductive technology. In: Reece EA, Leguizamon GF, Macones GA, Wiznitzer A, eds. *Clinical obstetrics: the fetus and mother*. 4th ed. Philadelphia: Lippincott Williams & Wilkins, 2021:169-78.

44. Epelboin S, Labrosse J, De Mouzon J, et al. Higher risk of pre-eclampsia and other

vascular disorders with artificial cycle for frozen-thawed embryo transfer compared to ovulatory cycle or to fresh embryo transfer following in vitro fertilization. *Front Endocrinol (Lausanne)* 2023;14:1182148.

45. Herraiz S, Pellicer N, Romeu M, Pellicer A. Treatment potential of bone marrow-derived stem cells in women with diminished ovarian reserves and premature ovarian failure. *Curr Opin Obstet Gynecol* 2019;31:156-62.

46. Carson SA, Kallen AN. Diagnosis and management of infertility: a review. *JAMA* 2021;326:65-76.

Copyright © 2025 Massachusetts Medical Society.

IMAGES IN CLINICAL MEDICINE

The *Journal* welcomes consideration of new submissions for Images in Clinical Medicine. Instructions for authors and procedures for submissions can be found on the *Journal's* website at NEJM.org. At the discretion of the editor, images that are accepted for publication may appear in the print version of the *Journal*, the electronic version, or both.

A DETAILED LOOK AT LOCUM TENENS

RECLAIM CONTROL OF YOUR CAREER

Locum tenens empowers physicians to build their career on their own terms. As demand for healthcare increases amidst a worsening physician shortage, working locums can circumvent many challenges of traditional healthcare models.

Why more physicians are choosing locums

Challenges like burnout, administrative burdens, and a growing patient-to-physician gap are causing many physicians to become disillusioned with traditional employment arrangements. Working locums can lead to a more satisfying personal and professional life and remind you why you went into medicine in the first place.

Increased income

Supplement your current income, or increase your overall earning potential.

More time for patients

Fewer administrative tasks means more time to focus on your patients.

Flexibility

Part time or full time — work where, when, and however much you choose.

Variety

Experience new practice settings and patient populations, or enjoy a change of pace.



1ⁱⁿ 3

**physicians
currently work
or previously
worked locums**

Source: CHG LTAP Study,
2023*

YOU DESERVE A BALANCED MEDICAL CAREER.

At Weatherby, we're experts at providing locums opportunities that fit your personal goals and your idea of living. And for a limited time, residents and fellow receive a \$2,000 bonus when you confirm a locums assignment with Weatherby Healthcare.

Visit weatherbyhealthcare.com/sweet.

**Money talks.
So should we.**






Jobs for you, right to your inbox.


Sign up for **FREE** physician
job alerts today!

It's quick and easy to set up and can give
you a valuable edge in finding your next job.
Simply set your specialty and location and
we'll automatically send you new jobs that
match your criteria.

Get started now at:
nejmcareercenter.org/newalert







The NEW ENGLAND JOURNAL of MEDICINE

Classified Advertising Section

Sequence of Classifications			
Addiction Medicine Allergy & Clinical Immunology Ambulatory Medicine Anesthesiology Cardiology Critical Care Dermatology Emergency Medicine Endocrinology Family Medicine Gastroenterology General Practice Geriatrics Hematology-Oncology Hospitalist Infectious Disease Internal Medicine Internal Medicine/Pediatrics Medical Genetics	Neonatal-Perinatal Medicine Nephrology Neurology Nuclear Medicine Obstetrics & Gynecology Occupational Medicine Ophthalmology Osteopathic Medicine Otolaryngology Pathology Pediatrics, General Pediatric Gastroenterology Pediatric Intensivist/ Critical Care Pediatric Neurology Pediatric Otolaryngology Pediatric Pulmonology Physical Medicine & Rehabilitation	Preventive Medicine Primary Care Psychiatry Public Health Pulmonary Disease Radiation Oncology Radiology Rheumatology Surgery, General Surgery, Cardiovascular/ Thoracic Surgery, Neurological Surgery, Orthopedic Surgery, Pediatric Orthopedic Surgery, Pediatric Surgery, Plastic Surgery, Transplant Surgery, Vascular Urgent Care	Urology Chiefs/Directors/ Department Heads Faculty/Research Graduate Training/Fellowships/ Residency Programs Courses, Symposia, Seminars For Sale/For Rent/Wanted Locum Tenens Miscellaneous Multiple Specialties/ Group Practice Part-Time Positions/Other Physician Assistant Physician Services Positions Sought Practices for Sale

Classified Advertising Rates

We charge \$11.20 per word per insertion. A 2- to 4-time frequency discount rate of \$8.35 per word per insertion is available. A 5-time frequency discount rate of \$7.95 per word per insertion is also available. In order to earn the 2- to 4-time or 5-time discounted word rate, the request for an ad to run in multiple issues must be made upon initial placement. The issues do not need to be consecutive. **Web fee:** Classified line advertisers may choose to have their ads placed on NEJM CareerCenter for a fee of \$140.00 per issue per advertisement. The web fee must be purchased for all dates of the print schedule. The choice to place your ad online must be made at the same time the print ad is scheduled. **Note:** The minimum charge for all types of line advertising is equivalent to 30 words per ad. Purchase orders will be accepted subject to credit approval. For orders requiring prepayment, we accept payment via Visa, MasterCard, and American Express for your convenience, or a check. All classified line ads are subject to the consistency guidelines of NEJM.

How to Advertise

All orders, cancellations, and changes must be received in writing. E-mail your advertisement to us at ads@nejmcareercenter.org, or fax it to 1-781-895-1045 or 1-781-893-5003. We will contact you to confirm your order. Our closing date is typically the Friday 20 days prior to publication date; however, please consult the rate card online at nejmcareercenter.org or contact the Classified Advertising Department at 1-800-635-6991. Be sure to tell us the classifica-

tion heading you would like your ad to appear under (see listings above). If no classification is offered, we will determine the most appropriate classification. Cancellations must be made 20 days prior to publication date. Send all advertisements to the address listed below.

Contact Information

Classified Advertising
The New England Journal of Medicine
860 Winter Street, Waltham, MA 02451-1412
E-mail: ads@nejmcareercenter.org
Fax: 1-781-895-1045
Fax: 1-781-893-5003
Phone: 1-800-635-6991
Phone: 1-781-893-3800
Website: nejmcareercenter.org

How to Calculate the Cost of Your Ad

We define a word as one or more letters bound by spaces. Following are some typical examples:

Bradley S. Smith III, MD.....	= 5 words
Send CV	= 2 words
December 10, 2007	= 3 words
617-555-1234	= 1 word
Obstetrician/Gynecologist ...	= 1 word
A	= 1 word
Dalton, MD 01622	= 3 words

As a further example, here is a typical ad and how the pricing for each insertion is calculated:

MEDICAL DIRECTOR — A dynamic, growth-oriented home health care company is looking for a full-time Medical Director in greater New York. Ideal candidate should be board certified in internal

medicine with subspecialties in oncology or gastroenterology. Willing to visit patients at home. Good verbal and written skills required. Attractive salary and benefits. Send CV to: E-mail address.

This advertisement is 56 words. At \$11.20 per word, it equals \$627.20. This ad would be placed under the Chiefs/Directors/ Department Heads classification.

Classified Ads Online

Advertisers may choose to have their classified line and display advertisements placed on NEJM CareerCenter for a fee. The web fee for line ads is \$140.00 per issue per advertisement and \$240.00 per issue per advertisement for display ads. The ads will run online two weeks prior to their appearance in print and one week after. For online-only recruitment advertising, please visit nejmcareercenter.org for more information, or call 1-800-635-6991.

Policy on Recruitment Ads

All advertisements for employment must be non-discriminatory and comply with all applicable laws and regulations. Ads that discriminate against applicants based on sex, age, race, religion, marital status or physical handicap will not be accepted. Although the *New England Journal of Medicine* believes the classified advertisements published within these pages to be from reputable sources, NEJM does not investigate the offers made and assumes no responsibility concerning them. NEJM strives for complete accuracy when entering classified advertisements; however, NEJM cannot accept responsibility for typographical errors should they occur.

nejmCareerCenter.org

Classified Ad Deadlines	
Issue	Closing Date
June 5	May 16
June 12	May 22
June 19	May 30
June 26	June 6

Hospitalist

INTERNAL MEDICINE HOSPITALIST — Androscoggin Valley Hospital. Requires Medical Degree, completion of Family or Internal Medicine Residency, BC/E in FM or IM, eligible for NH medical license. Send CV to: Keith Shute, Chief Medical Officer/SVP, Androscoggin Valley Hospital, 59 Page Hill Road, Berlin, NH 03570; Keith.Shute@northcountryhealth.org

Fast.
Useful.
Comprehensive.

NEJM CareerCenter

Check it out at
NEJMCareerCenter.org.

Infectious Disease

TRIPLE O MEDICAL SERVICES PA — Is seeking a BC/BE Infectious Disease Physician. Must have MD or equivalence and completion of residency in Internal Medicine and Fellowship in Infectious Diseases. Possesses or eligible for Florida Medical License. Call schedule: every other week-end. Compensation \$260,000 plus bonus. Benefit package includes insurance, vacation, and 401k. J-1 visa welcome. Location: West Palm Beach (Palm Beach County) Florida. If interested email resume to: drtripleo@tripleomedical.com

Help employers
find you!

Create a physician
profile today on
NEJMCareerCenter.org.

NEJM
CareerCenter

Nephrology

NEPHROLOGYUSA — Represents Nephrology opportunities nationwide, with Group Practices and Hospitals. Excellent compensation, benefits with partnership, and joint venture potential. For additional information, call/text: (561)409-0320. E-mail: Brett@nephrologyusa.com; website: www.NephrologyUSA.com

Practices For Sale

FOR SALE — General Internal Medicine Practice: Scottsdale, Arizona. Prime growth location. Mature Practice, Wonderful and loyal patients. Great opportunity for new and/or relocating physician for growth and/or converting to Concierge Medical Practice. Annual Gross: \$500,000 /Net 47%. Patient visits 4700 per year & 800 Executive Physicals Annually. Inquire: kdrmdpc@gmail.com

PHYSICIAN RECRUITER

The physician you're seeking is one of our readers. Advertise in the next issue of the *New England Journal of Medicine* and reach physicians in all specialties nationwide.

For more information, contact us at ads@nejmcareercenter.org.

Excellence in cancer care has a **network**.

Every day, The US Oncology Network helps 1,700+ dedicated physicians maintain their independence and deliver innovative, personalized cancer care.

 Learn about physician careers

physicianrecruiting@usoncology.com

 The US Oncology Network

IMPROVING LIVES AND EXPLORING COLORADO

You can make extraordinary possible.

 Kelly Klotz, MD
Internal Medicine - Pediatrics

Your next career opportunity could be in the home of the Rocky Mountains. Join us today.

 To apply, scan the QR code or visit joinuchealth.org

uhealth

NEJMCareerCenter.org

NEJMCareerCenter.org

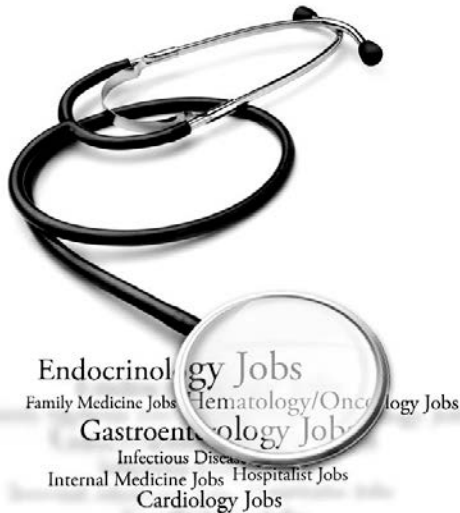
SEARCH AND APPLY FOR JOBS FROM YOUR PHONE.

NEJM CareerCenter, the physician jobs companion website of the *New England Journal of Medicine*, has a **NEW** iPhone app. Access our nationwide database to find quality jobs from a source you can trust.

- Search or browse quality physician jobs by specialty and/or location
- Receive notification of new jobs that match your search criteria
- Save jobs with the touch of a button
- Email or tweet jobs to your network
- Apply for jobs directly from your phone!

NEJMCareerCenter.org

NEJM
CareerCenter



The NEW ENGLAND
JOURNAL of MEDICINE

Physician Opportunities

Join Our Growing Team!

We are seeking Board Certified/Board Eligible Physicians. Residency or postgraduate training candidates are encouraged to apply. We offer competitive salaries and a world-class benefits package. Located just north of New York City, Westchester offers the best of city and suburban living, with a variety of housing options for singles, couples and families, excellent public and private schools, scenic landscapes, parks, hiking trails, shopping, dining, entertainment and convenient access to Manhattan.

Exceptional, Every day.

White Plains Hospital Physician Associates (WPHPA) is the ambulatory division of White Plains Hospital, a CMS 5-Star Hospital that serves as the tertiary hub for the Montefiore Health System in the Hudson Valley. We bring advanced care close to home for patients at our main Hospital and outpatient care locations throughout Westchester.




How to Apply

For more information and to apply, please contact JoAnne Carrier at jcarrier@wphospital.org.

wphpa.org wphospital.org

 **Private Medical Practice
In Mississippi Looking
To Hire Physicians for
Internal Medicine and
Infectious Disease**

Practice Locations:

- ♥ Vicksburg, MS
- ♥ Jackson, MS

Requirements:

- ♥ Board Eligible/Board Certified MD or DO
- ♥ J-1 Waiver eligible
- ♥ Outpatient / Inpatient settings
- ♥ ACLS training

Benefits:

- ♥ Competitive Compensation
- ♥ Paid Sick Leave
- ♥ Paid Vacation Leave
- ♥ 401K
- ♥ Medical/Dental/Vision Insurance
- ♥ Short Term Disability/Long Term Disability
- ♥ Relocation assistance

Please e-mail resume to:
mgriffith@mavmd.com



Build your career your way.

Finding your way back to loving medicine starts with a career built around your life, your preferences, and your passions. Our specialty-specific recruiters are ready to go to the mat to find you the job with all the little details that matter to you.



Learn More

CompHealth®



We do the right thing



At Intermountain Health, we're united in our shared mission of helping people live the healthiest lives possible.

Joining us means having a commitment to safety, quality, equity, access, culturally competent care, and the patient experience. It means having compassion and grace, even in the toughest of situations, and knowing that together, we can be a powerful force of good.

providersourcing@imail.org | PhysicianJobsIntermountain.org

Jobs for you, right to your inbox.

Sign up for **FREE** physician job alerts today!

It's quick and easy to set up and can give you a valuable edge in finding your next job. Simply set your specialty and location and we'll automatically send you new jobs that match your criteria.



Get started now at: nejmcareercenter.org/newalert



Editorial Fellowship The New England Journal of Medicine

The *New England Journal of Medicine* invites applications from physicians at any career stage for a one-year, full-time, paid editorial fellowship beginning in July 2026. Several fellows will be selected for the 2026–27 year; applications are due by August 1, 2025. The editorial fellows review and edit Images in Clinical Medicine submissions and write Clinical Decisions columns under the supervision of senior editors. The fellows also suggest topics for the Review Article series and contribute to the work of the *Journal* — including the production of videos and podcasts (such as NEJM Double Take videos and Beyond Journal Club podcasts with Core IM) — according to their skills and inclination. One fellow will be selected to spend a portion of the year working with the *NEJM Evidence* team. The fellows participate in the day-to-day editorial activities of the *Journal* and attend the weekly editorial meetings, where they have the opportunity to gain a deeper understanding of the analyses and considerations that guide decisions about which articles to publish.

For a more in-depth look at the experience of an NEJM editorial fellow, please visit editorialfellows.nejm.org and click the link to view reflections by prior NEJM fellows. We are looking for candidates who have good medical judgment, who can work independently, and who have a good command of written English. Applicants are not required to be U.S. citizens, but successful candidates must reside in the Boston area for the duration of the fellowship. Please visit editorialfellows.nejm.org to upload your curriculum vitae and a required letter of interest addressed to Dr. Eric Rubin. If you have any questions, please email editorial@nejm.org with the subject line “NEJM Editorial Fellowship Application 2026–27.”



The NEW ENGLAND JOURNAL of MEDICINE

The MMS is an Equal Opportunity Employer, committed to providing opportunities to veterans and people with disabilities and a work environment that is welcoming to all.

Transforming care

We are physician-led and patient-centered. Driven by purpose. Informed by the communities we serve in Greater Boston. Invested in dedicated physicians like you. Together, we can improve lives. Won't you join us?



Scan the QR code or visit AtriusHealthProviders.org/Careers



Atrius Health is an Affirmative Action/Equal Employment Opportunity Employer.

WE GET WHAT MATTERS
TO YOU MOST.

DHA CIVILIAN PHYSICIANS GET THE
WORK-LIFE BALANCE THEY NEED &
THE BENEFITS THEY DESERVE.

- Competitive Salary
- Job Security
- Generous Paid Time Off
- Supportive Work Environment
- Flexible Schedules
- 350+ Worldwide Locations

DHA civilian employees are NOT subject to military requirements
such as "boot camp," enlistments, or deployments.
Department of Defense is an equal opportunity employer.

FIND JOBS | POST YOUR CV | LEARN MORE
CIVILIANMEDICALJOBS.COM



Find your future.
Find your team.

Sutter Health is one of the nation's
leading community-based, not-for-profit
health care networks, comprising
hospitals, physician organizations,
and other health care services.
Our award-winning facilities are located
throughout California, from the Pacific
Coast to the Sierra Foothills, serving
more than 100 communities statewide.

Advancing Health and
Wellness for Everyone in
Our Community

At Berkshire Health Systems,
"everyone" means our dedicated
employees, too.

Experience the Berkshire difference – a
fulfilling career and a balanced lifestyle in the
hills of Western Massachusetts. Be part of a
team that invests in your success!



FOR MORE INFORMATION, PLEASE CONTACT:

Michelle Maston, Physician Recruiter

Phone: (413) 395-7689

Email: mmaston@bhs1.org

TO LEARN MORE
ABOUT OUR TEAM
SCAN THE QR CODE
AND APPLY TODAY!



Berkshire Health Systems

What We Offer

- Competitive compensation and benefits package.
- An idyllic California location.
- A physician-led philosophy.
- Not-for-profit and community-focused healthcare.
- Strength through diversity.
- Innovation and connectedness.



Join us at Sutter Health—where your passion meets purpose.
To explore all of our career opportunities, visit:
jobs.sutterhealthclinicians.org

\$2,000

is the cherry on top.

Locums is a sweet start to your career. It can help you pay down your student loans and give you flexibility for work/life balance. Now, for a limited time, residents and fellows receive a \$2,000 bonus.



***Money talks.
So should we.***

Visit weatherbyhealthcare.com/sweet

Valid for residents and fellows. Assignment must be confirmed between April 1 and December 31, 2025.



Weatherby
HEALTHCARE™

