### Welcome to our Department of Internal Medicine

- My journey
- Your journey
- Our Department
- 10 Major Divisions
- Access to our Divisions



Matching System Blocks in Pillar 1 to Specialists in Pillar 2-3

### Welcome to our Department of Internal Medicine

# General Internal Medicine - Primary Care

#### Typical work week

- Primary care physicians usually see patients in outpatient clinics every day.
- Some also round in the hospital, but many work exclusively in outpatient clinics.
- · These physicians handle a broad spectrum of illnesses.
- · Patients are seen for both acute and chronic problems.
- Acute problems might include infections, pain, or problems with medications.
- Chronic problems might include diabetes, hypertension, heart disease, or kidney disease.
- Primary care providers also place strong emphasis on patient education and disease prevention.
- Preventive activities often include weight management, cancer screening and adult vaccination.

#### Other responsibilities

- Some primary care physicians see patients in the hospital.
- Whether inpatient or outpatient, these physicians coordinate input from multiple specialists.
- Because of their strong role as patient educators, they are often leaders in the community as well.
- Many teach medical students or house staff, and some primary care physicians do clinical research.

#### Lifestyle and income

- The number of providers in solo practice is declining, and the number in group practice is increasing.
- Most general internists practice primary care as part of a large group practice or at an academic center.
- Larger groups ensure cross coverage for vacations and night call. Night call is usually taken from home.
- The shortage of primary care physicians means that there is more attention is being paid to salary.
- Current salaries are increasing and are therefore now comparable to many medical specialties.
- In 2015, the median salary for internists in private practice was approximately \$240,000/year.

#### Getting started

- . The first step is to do a residency in Internal Medicine.
- Internal Medicine residency is a 3 year training period.
- · Most general internists then move directly into practice.
- · This field allows physicians to care for their patients over time.
- · The longitudinal physician-patient relationships are very rewarding.



Eric A. Larson, MD, FACP, maintains a busy clinical practice at Sanford Health

Fallow of the American College of Physicians Associate Professor, Department of Internal Medicine Chief, Division of Ambulatory General Internal Medicine



### General Internal Medicine

### - Hospitalist

#### Typical work week

- · Experts in the care of patients who are hospitalized and acutely ill.
- Hospitalists see patients who present with a broad spectrum of acute medical filnesses. Common conditions managed include acute decompensated heart failure, pneumonia, pulmonary embolism, acute kidney injury, strial fibrillation, and severe complicated infactions.
- Full time hospitalists work 14-16 shifts per month. Shift length is 10-12 hours.

#### Other responsibilities

- · Sixty six percent of all hospitalists work in the intensive care unit.
- · Lead the code blue and rapid response teams in many hospitals.
- · Leaders in patient safety, quality improvement, and transitions of care.
- Many move onto leadership positions within their organizations. These
  include chief medical officers, directors of quality improvement and division
  chiefs of internal medicine.
- Position provides opportunities in academic medicine overseeing internal medicine residents and medical students. Also provides opportunities for research in Healds of clinical reasoning, cost effectiveness, transitions of care, quality improvement, and patient safety.

#### Lifestyle and income

- Fastast growing medical specialty in the United States. Currently are 52000 practicing hospitalists in the US.
- The majority of hospitalists are employed by healthcare systems, multi-state management companies or academic institutions.
- In 2015, the median salary for internal medicine based hospitalists in private practice was \$260,000/year.

#### Getting started

- · The first step is to do a residency in Internal Medicine.
- Internal Medicine residency is a 3 year training period.
- · Most hospitalists then move directly into practice
- This field allows physicians to maintain an appropriate work-life balance, while leading the healthcare team in an inpatient setting.

For more information, contact:
Department of Internal Medicine, USD Sanford School of Medicine
605-357-1340 | Internal medicine@usd.edu



Nathan J. Miller, MD, practices hospital medicine at Avera Health

Assistant Professor, Department of Internal Medicine
Chief, Division of Hospital Medicine



### Welcome to our Department of Internal Medicine

# Internal Medicine - Specialists

### Cardiovascular Diseases

Cardiovascular disease represents the number one cause of mortality in our country. Cardiologists manage both acute and chronic illness. They often help other physicians manage complex cases with high risk of cardiovascular mortality. The patients can rapidly get better with treatment, though also they can rapidly decompensate (opportunity for fast and effective treatment). Cardiologists (often subspecialized, especially in invasive procedure cases) treat coronary artery disease, rhythm. problems, heart failure and vascular diseases, as well as provide preventive cardiovascular disease expertise. The dynamics of the specialty and a growing access to technology over the last few decades make cardiology a very spectacular, yet practical part of medicine. In 2015, the median salary for a cardiologist in private practice was approximately \$500,000/year.

### Infectious Diseases

While many physicians manage uncomplicated infections, infectious disease I(IV) specialists are often called to consult on complex cases, including infections with unusual or drugnesistant organisms, or infections in immunocompromised patients. Infections may be actue (Bis pneumonia) or chronic (Bis HWAIDS), ID physicians work in a variety of settings from private practice to a cademir medicine to public health to industry. Outside of direct patient care, ID physicians may provide



Faculty members in the Division of Infectious Diseases participate in the 2016 Humphreys Forum. Front row (I.1 o R): Drs. Schridty Stinlinazon, Susan Hoover, and Jennifor Hiss Back row (I. to R): Drs. Jowad Nazor, Wendell Hoffman, Fanes Masannaf, Brian Peotics, and Gerard David.

# SOUTH DAKOTA

### Pulmonology and Critical Care

Pulmonologists see a variety of cases from asthma and chronic obstructive pulmonary disease (COPD) to interstitial lung diseases. from obstructive sleep apnea to pulmonary vascular disease. Pulmonologists also work together with oncologists, radiologists and surgeons in managing lung cancer. The care of these patients is both challenging and rewarding, and it also requires procedural skills such as performing thoracentesis and bronchoscopy. Pulmonologists can work in both outpatient and inpatient settings, and most pulmonologists are also trained in critical care medicine. Critical care medicine usually involves additional fellowship training. This includes taking care of the sickest patients, which requires an understanding of hemodynamics and ventilator management. This also entails additional procedures such as intubation and central catheter placements. While most intensivists work inpatient, there are practice models for critical care that employ telemedicine as well. In 2015, the median

salary for a pulmonologist in private practica was approximately \$350,000/year.

#### Endocrinology

Endocrinology specialists help patients manage common chronic illnesses like diabetes mellitus. thwoid dysfunction, and problems with steroid hormone levels. Endocrinologists often develop long term rapport with their patients due to the chronicity of these diseases, and while many endocrinologists often do consultation work in inpatient settings, their work is primarily outpatient. They may work in a variety of settings from private practice to academic medicine to public health to industry. Outside of direct patient care, endocrinologists may also provide expertise in prevention and management of public health concerns like diabetes and the obesity epidemic. In 2015, the median salary for an endocrinologist in private practice was approximately \$250,000/year.

### Nephrology

Nephrology is a subspecialty of internal medicine providing care for patients with kidney related diseases. Nephrologists often take care of some of the most chronically sick patients in medicine. They manage a spectrum of disease states including renal insufficiency, dislysis, hypertension and electrolyte abnormalities. Nephrologists work in close collaboration with social workers, perhammatists and nurses. Nephrologists also use a deep understanding of immunology, physiology.

pharmacology and chemistry to care for their patients. Because of the complicativy of these patients, we often interact with other subspecialst. If patients do progress to end stage renal disease, a neighteologist manages mail replacement therapy ranging from hemodislysis, pentioneal dialysis and transplantation. Neighteologist sales play an important role in the prevention and management of chemic kidney disease in an attempt to avoid progression to end-stage renal disease. This is done through the diagnosis and treatment of underlying kidney disease, management of blood pressure, electrolytes, metabolic bone disease, anemia and runtifion. In 2015, the median salary for a neighhologist in private practice was approximately \$350,000/year.

### Hematology and Oncology

Hematology and Oncology specialists provide care for patients with blood disorders and cancer. While clinicians can chose to specialize in one or the other discipline, most of these physicians are dual boarded in both hematology and oncology. Hematologists focus on the management of common and rare blood disorders including chronic anemia, sickle cell anemia, blood clotting disorders, and blood cancers, such as leukemia and lymphoma. Oncologists focus on the management of all varieties of cancer, utilizing chemotherapy, targeted therapy, and immunotherapy to treat these diseases. These specialists typically work directly with surgeons and radiation oncologists a part of a cancer

with surgeons and radiation oncocare team. This speciality has an extensive range of career opportunities ranging from private practice all the way to reasen focused careers in academia or industry. The field is constantly evolving with healthroughe in treatments emerging at a rapid pace. In 2015, the median salary for a Hematologist/Oncologist in private practice was approximately \$430,000/year.

### Rheumatology

Rheumatologists specialize in the diagnosis and management of patients with a broad range of auto-immune conditions. Many have multisystem organ involvement. The spectrum ranges from common illnesses such as rheumatoid arthritis to more rare diseases such as systemic lupus erythematosus, systemic vasculitis, and scleroderma. These specialists often have to utilize all clues from the history, physical examination, and diagnostic testing to "solve the puzzle" and identify rhoumatic conditions in the early stages. After securing a diagnosis, rheumatologists develop strong relationships with their patients to implement individualized treatment plans. Recent advances in targeted immune therapies have made the treatment of these patients exciting and rewarding with often excellent outcomes. In 2015, the median salary for a rheumatologist in private practice was approximately \$250,000/year.

### Gastroenterology and Hepatology

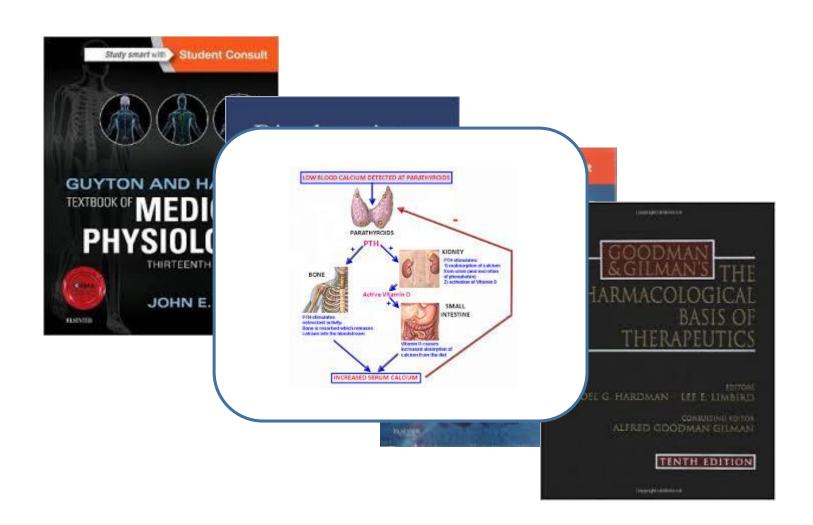
Castroenterologists care for patients with both acute and chronic illnesses. Because patients with gestrointestinal conditions present with a geant variety of symptoms and, because several multi-system diseases present with gestrointestinal complaints, gastroenterology represents one of the key foundations of internal medicine. In addition, advances of andoscopic procedures have clearly changed and improved the early diagnosis and management of various diseases in a highly accurate and cost-offsective manner. Quality of life is often very reasonable, and economical reimbursement continues to be quite strong. In 2015, the median salary for a gastroenterologist in private practice was approximately \$530,000/vear.

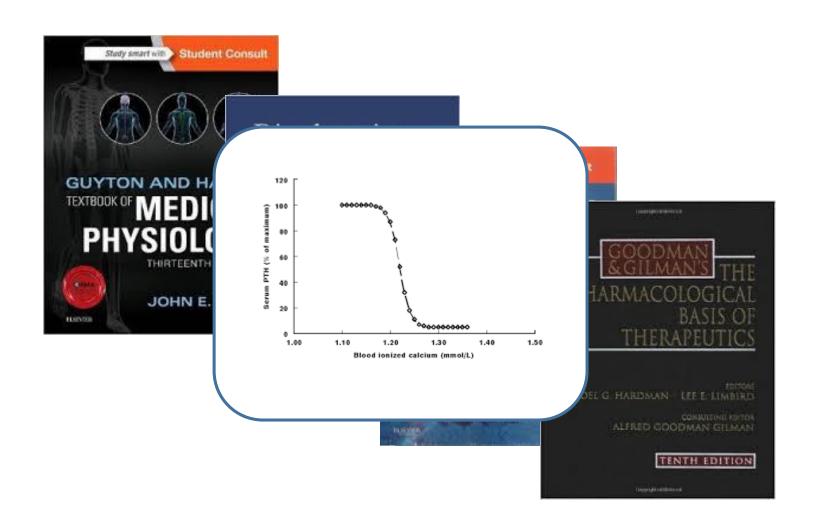


For more information, contact: Department of Internal Medicine USD Sanford School of Medicine 605-357-1340 | Internalmedicine@usd.edu





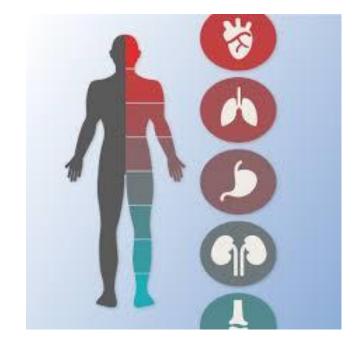












Research Funding

Research at NHGRI

Health

Education

Issues in Genetics

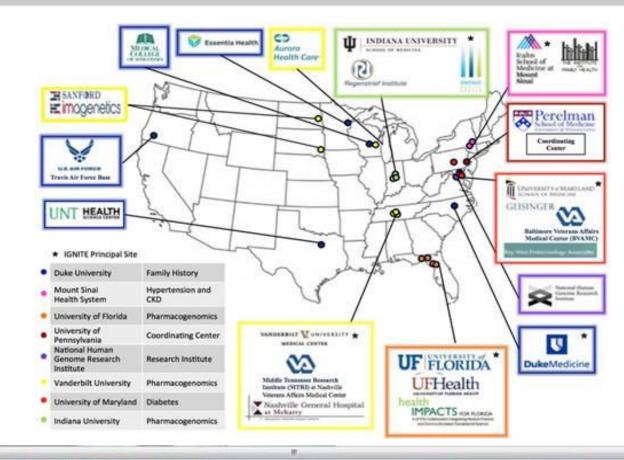
Newsroom

Careers & Training

About

Research Funding > Research Funding Divisions > Division of Genomic Medicine > Research Programs > Implementing Genomics in Practice (IGNITE)

Division of Genomic I Current Research Pro	
Clinical Genome Resour	ce
Clinical Sequencing Exp Research	loratory
Electronic Medical Reco Genomics (eMERGE) Ne	
Genotype-Tissue Expres Project (GTEx)	ssion
Implementing Genor Practice (IGNITE)	nics in
Molecular Libraries and	Imaging
Newborn Sequencing in Medicine and Public He (NSIGHT)	
PAGE Consortium	•

















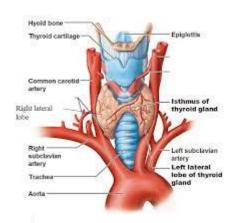


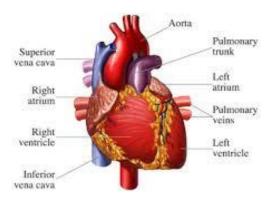


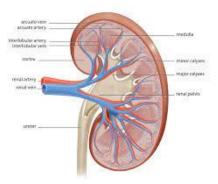












### Endocrinology specialists help patients

manage common chronic illnesses like diabetes
mellitus, thyroid dysfunction, and problems with steroid
hormone levels. Endocrinologists often develop long

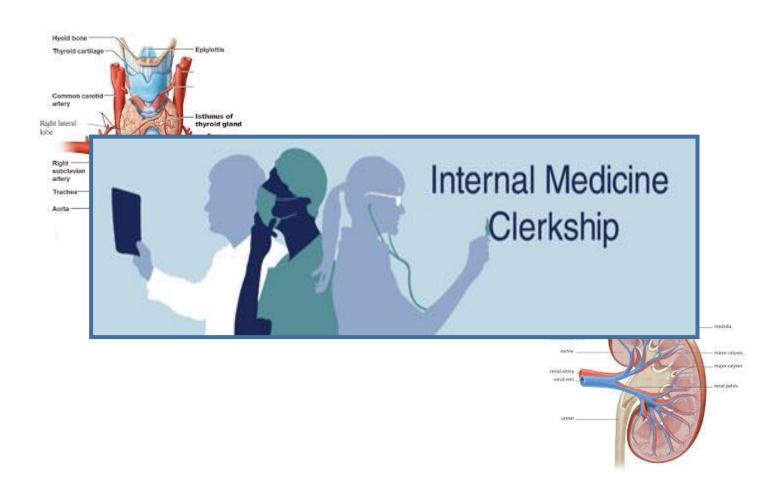
term rapport with their patients due to to of these diseases, and while many endor often do consultation work in inpatient: work is primarily outpatient. They may wof settings from private practice to acad to public health to industry. Outside of care, endocrinologists may also provide prevention and management of public hike diabetes and the obesity epidemic.

### Cardiovascular Diseases represents

the number one cause of mortality in our country.
Cardiologists manage both acute and chronic illness.
They often help other physicians manage complex cases with high risk of cardiovascular mortality. The patients can rapidly get better with treatment, though also they

can rapidly decompensate (opportunity effective treatment). Cardiologists (ofter especially in invasive procedure cases) that artery disease, rhythm problems, heart that vascular diseases, as well as provide precardiovascular disease expertise. The dy specialty and a growing access to technolast few decades make cardiology a very practical part of medicine.

Nephrology is a subspecialty of internal medicine providing care for patients with kidney related diseases. Nephrologists often take care of some of the most chronically sick patients in medicine. They manage a spectrum of disease states including renal insufficiency, dialysis, hypertension and electrolyte abnormalities. Nephrologists work in close collaboration with social workers, pharmacists and nurses. Nephrologists also use a deep understanding of immunology, physiology, pharmacology and chemistry to care for their patients. Because of the complexity of these patients, we often interact with other subspecialist. If patients do progress to end stage renal disease, a nephrologist manages renal replacement therapy ranging from hemodialysis, peritoneal dialysis and transplantation. Nephrologists also play an important role in the prevention and management of chronic kidney disease in an attempt to avoid progression to end-stage renal disease. This is done through the diagnosis and treatment of underlying kidney disease, management of blood pressure, electrolytes, metabolic bone disease, anemia and nutrition.



### Major Divisions in Internal Medicine

- Primary Care (GIM)
- Hospital Medicine
- Cardiology
- Dermatology
- Endocrinology
- Gastroenterology
- Geriatric Medicine
- Hematology/Oncology
- Infectious Diseases
- Nephrology
- Pulmonology
- Rheumatology

### 65 Electives Available in Clinical Years

CLERKSHIP GUIDE TO SPE	CIALISTS (DEPT of IM)				
<u>DIVISION</u> <u>C</u>	CHIEF	COORDINATOR: SF - SANFORD	COORDINATOR: SF - AVERA	COORDINATOR: RAPID CITY	COORDINATOR: YANKTON
GIM- OUTPATIENT D	Dr. Eric Larson	Dr. Candace Zeigler	Dr. Scott Hiltunen	Dr. James Bowman	Dr. Tyler Hanson
		Stephanie.Rieck@sanfordhealth.org	Janet.Wollman@avera.org	thite@regionalhealth.com	605-665-7841
		605-328-7516	605-782-8329	605-755-3300	
GIM- OUTPATIENT D	Dr. Nathan Miller	Dr. Randall Lamfers	Dr. Nathan Miller	Dr. Shahid Ahmad	Dr. Beth Mikkelsen
		Kris.Nelson@sanfordhealth.org	Katie.Bruns@usd.edu	pmorgan1@regionalhealth.com	605-668-8000
		605-328-4973	605-357-1364	605-755-8894	
CARDIOLOGY / CCU D	Dr. Adam Stys	Dr. Adam Stys	Dr. Paul Carpenter	Dr. Jose Teixeira	Dr. Will Hurley
	·	Darla.Fjerstad@sanfordhealth.org	cvoeltz@ncheart.com	mermish@regionalhealth.com	605-665-7841
		605-312-2253	605-977-5000	605-755-4300	
DERMATOLOGY D	Dr. Brian Knutson	(appointment pending)	Dr. Brian Knutson	Dr. Gregory Wittenberg	Dr. James Young
		recruitment in process	Bryan.Haan@avera.org	mschweppeme@rcmed.net	605-655-7841
			605-322-6971	605-342-3280	
ENDOCRINOLOGY D	Dr. Ajaz Banka	Dr. John Palmer	Dr. Ajaz Banka	(appointment pending)	(appointment pending)
	•	Amanda.Saeger@sanfordhealth.org	Chantelle.McCoy@avera.org	recruitment in process	recruitment in process
		605-328-8143	605-322-7617		
GASTROENTEROLOGY D	Dr. Jorge Gilbert	Dr. Jorge Gilbert	Dr. Cristina Hill Jensen	(appointment pending)	Dr. Stephen Gutnik
		Deborah.Skaff@sanfordhealth.org	Rebecca.Washnok@avera.org	recruitment in process	605-665-7841
		605-328-8511	605-322-8631		
HEMATOLOGY/ONCOLOGY D	Dr. Michael McHale	Dr. Jonathan Bleeker	Dr. Michael McHale	Dr. Joshua Lukenbill	Dr. Mary Villanueva
D	r. Jonathan Bleeker	Cassie.McClure@sanfordhealth.org	Michael.McHale@avera.org	605-755-2301	605-665-7841
		605-328-8628	605-322-6900 & ask for Dr. McHale		
INFECTIOUS DISEASES D	Dr. Jennifer Hsu	Dr. Jennifer Hsu	Dr. Brian Pepito	(appointment pending)	Covered by Telemedicine
		Margaret.Kropuenske@sanfordhealth.org	Karla.Ludwig@avera.org	recruitment in process	Avera.org/ecare
		605-328-8438	605-322-7250		
NEPHROLOGY D	Or. Larry Burris	Dr. Larry Burris	Dr. Arvin Santos	Dr. Louis Raymond	Dr. Byron Neilsen
		Stacy.Weller@sanfordhealth.org	Pat.Sivesind@avera.org	kvollmer1@regionalhealth.com	605-665-7841
		_	605-322-5806	605-755-3327	
PULMONOLOGY / ICU D	Dr. Debbie Qua	Dr. Debbie Qua	Dr. Eyad Kawar	(appointment pending)	Dr. Lori Hansen
		Debbie.Qua@sanfordhealth.org	Laurie.Koerner@avera.org	recruitment in process	605-665-1152
		605-328-8900	605-322-6938		
RHEUMATOLOGY D	Dr. Joseph Fanciullo	(appointment pending)	Dr. Joseph Fanciullo	Dr. Jennifer May	Dr. Leann Maska-Bassing
	·	recruitment in process	Kathy.Miles@avera.org	605-755-3300	605-665-1722
			605-322-6644		

# Internal Medicine - Specialists

#### Cardiovascular Diseases

Cardiovascular disease represents the number one cause of mortality in our country. Cardiologists manage both acute and chronic illness. They often help other physicians manage complex cases with high risk of cardiovascular mortality. The patients can rapidly get better with treatment, though also they can rapidly decompensate (opportunity for fast and effective treatment). Cardiologists (often subspecialized, especially in invasive procedure cases) treat coronary artery disease, rhythm. problems, heart failure and vascular diseases, as well as provide preventive cardiovascular disease expertise. The dynamics of the specialty and a growing access to technology over the last few decades make cardiology a very spectacular, yet practical part of medicine. In 2015, the median salary for a cardiologist in private practice was approximately \$500,000/year.

### Pulmonology and Critical Care

Pulmonologists see a variety of cases from asthma and chronic obstructive pulmonary disease (COPD) to interstitial lung diseases. from obstructive sleep apnea to pulmonary vascular disease. Pulmonologists also work together with oncologists, radiologists and surgeons in managing lung cancer. The care of these patients is both challenging and rewarding, and it also requires procedural skills such as performing thoracentesis and bronchoscopy. Pulmonologists can work in both outpatient and inpatient settings, and most pulmonologists are also trained in critical care medicine. Critical care medicine usually involves additional fellowship training. This includes taking care of the sickest patients, which requires an understanding of hemodynamics and ventilator management. This also entails additional procedures such as intubation and central catheter placements. While most intensivists work inpatient, there are practice models for critical care that employ telemedicine as well. In 2015, the median

salary for a pulmonologist in private practice was approximately \$350,000/year.

#### Infectious Diseases

While many physicians manage uncomplicated infections, infectious disease (III) specialists are offen called to consult on complex cases, including infections with unusual or drug-resistant organisms, or infections in immunocompromised patients. Infections may be acute (like pneumonia) or chronic (like HIV/AIDS, ID physicians work in a variety of settings from private practice to a cademic medicine to public health to industry. Outside of direct patient care, ID physicians may provide expertise in prevention and management of public health



#### Endocrinology

Endocrinology specialists help patients manage common chronic illnesses like diabetes mellitus. thyroid dysfunction, and problems with steroid hormone levels. Endocrinologists often develop long term rapport with their patients due to the chronicity of these diseases, and while many endocrinologists often do consultation work in inpatient settings, their work is primarily outpatient. They may work in a variety of settings from private practice to academic medicine to public health to industry. Outside of direct patient care, endocrinologists may also provide expertise in prevention and management of public health concerns like diabetes and the obesity epidemic. In 2015, the median salary for an endocrinologist in private practice was approximately \$250,000/year.





### Nephrology

Nephrology is a subspecialty of internal medicine providing care for patients with kidney related diseases. Nephrologists often take care of some of the most chronically sick patients in medicine. They manage a spectrum of disease states including renal insufficiency, dialysis, hypertension and electrolyte abnormalities. Nephrologists work in close collaboration with social workers, pharmacists and nurses. Nephrologists work in close collaboration with social workers, pharmacists and nurses. Nephrologists and one of the province of the

prarmassts and nurses. Repirrologists also use a deep understropharmacology and chemistry to care for their patients. Because of the complexity of these patients, we often interact with other subspecialist. If patients do progress to end stage renal disease, a nephrologist manages renal replacement therapy ranging from hemodialysis, pentoneal dialysis and transplantation. Nephrologists also play an important role in the prevention and management of chronic kidney disease in an attempt to avoid progression to end-stage renal disease. This is done through the diagnosis and treatment of underlying kidney disease, management of blood pressure, electrolytes, metabolic bone disease, anemia and nutrition. In 2015, the median salary for a nephrologist in private practice was approximately \$33,50,000/year.

### Rheumatology

Rheumatologists specialize in the diagnosis and management of patients with a broad range of auto-immune conditions. Many have multisystem organ involvement. The spectrum ranges from common illnesses such as meumatoid arthritis to more rare diseases such as systemic lupus erythematosus, systemic vasculitis, and scleroderma. These specialists often have to utilize all dues from the history, physical examination, and diagnostic testing to "solve the puzzle" and identify rheumatic conditions in the early stages. After securing a diagnosis, rheumatologists develop strong relationships with their patients to implement individualized treatment. plans. Recent advances in targeted immune theranies have made the treatment of these patients exciting and rewarding with often excellent outcomes. In 2015, the median salary for a rheumatologist in private practice was approximately \$250,000/year.



Hematology and Oncology specialists provide care for patients with blood disorders and cancer. While clinicians can chose to specialize in one or the other discipline, most of these physicians are dual boarded in both hematology and oncology. Hematologists focus on the management of common and rare blood disorders including chronic anemia, sickle cell anemia, blood clotting disorders, and blood cancers, such as leukemia and lymphoma. Oncologists focus on the management of all varieties of cancer, utilizing chemotherapy, targeted therapy, and immunotherapy to treat these diseases. These specialists typically work directly with surgeons and radiation oncologists as part of a cancer care team. This speciality has

an extensive range of carser opportunities ranging from private practice all the way to research focused careers in academia or industry. The field is constantly evolving with breakthroughs in treatments emerging at a rapid pace. In 2015, the median salary for a Hematologist Oncologist in private practice was approximately \$430,000/year.

### Gastroenterology and Hepatology

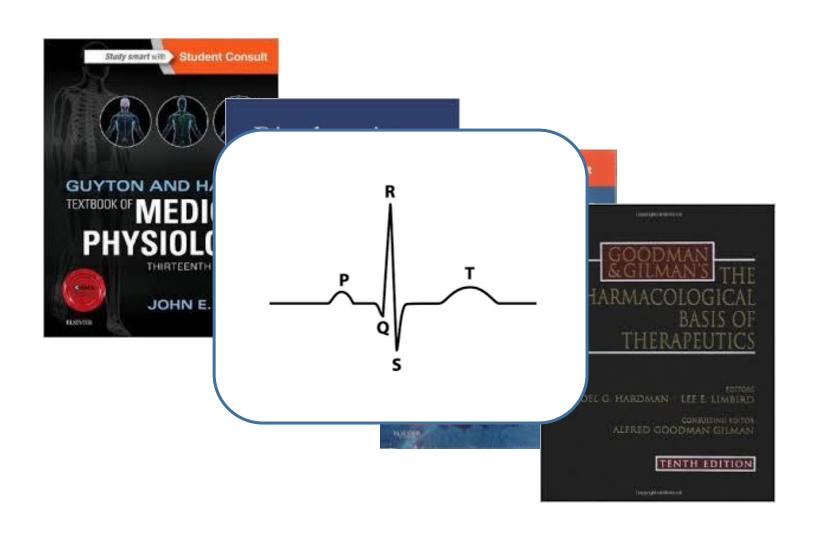
Gastroenterologists care for patients with both acute and chronic illnesses. Because patients with gastrointestinal conditions present with a grant variety of symptoms and, because several multi-system diseases present with gastrointestinal complaints, gastroenterology represents one of the key foundations of internal medicine. In addition, advances of endoscopic procedures have clearly changed and improved the early diagnosis and management of various diseases in a highly accurate and cost-effective manner. Quality of life is often very reasonable, and economical reimbursement continues to be quite strong. In 2015, the median salary for a gastroenterologist in private practice was approximately \$530,000/year.



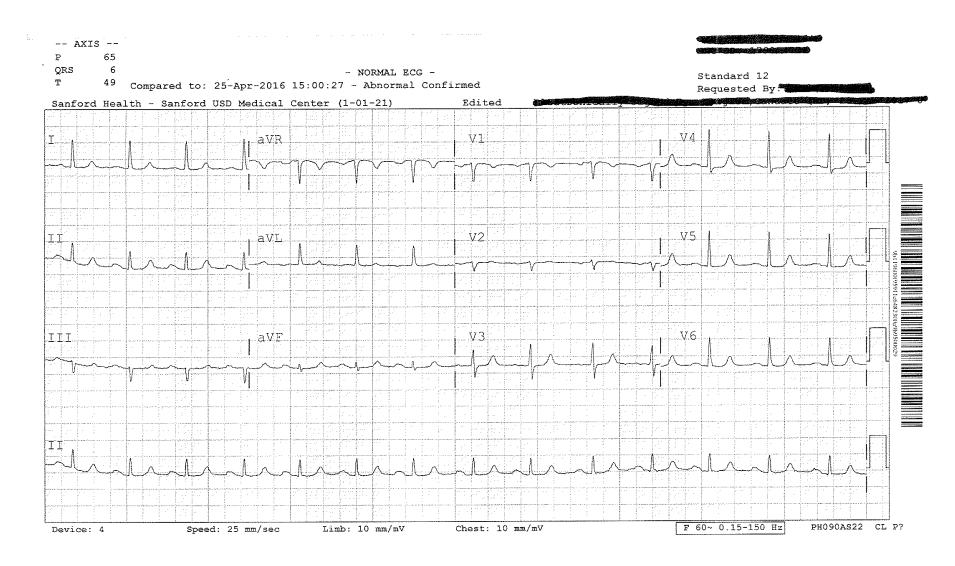
For more information, contact:
Department of internal Medicine
USD Sanford School of Medicine
605-357-1340 | internalmedicine@usd.edu



## Major Divisions in Internal Medicine



### **Normal EKG**



### **Abnormal EKG**

