



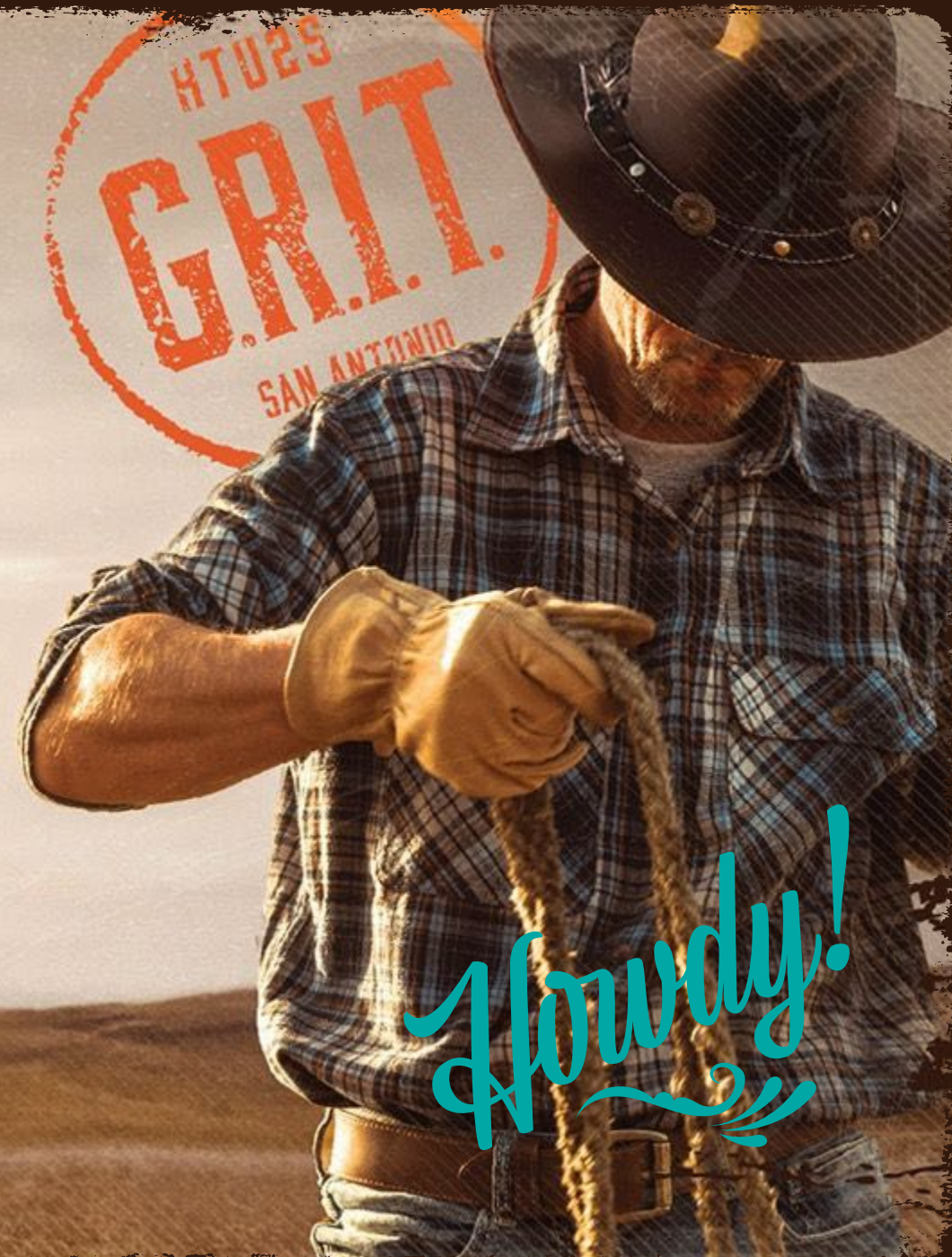
HEALTHTRUST®
UNIVERSITY CONFERENCE

Building Stronger Bones With Technology: Advanced Practice Pharmacists Transform Osteoporosis Care

THIS SESSION IS NOT OPEN TO SUPPLIERS

Applying for CE credit or need a Certificate of Participation? Be sure to snap a pic of the code shown at the end of this session.

CE Deadline: 09/30/25





HEALTHTRUST[®]
UNIVERSITY CONFERENCE

Building Stronger Bones with Technology: Advanced Practice Pharmacists Transform Osteoporosis Care



Amy McKaskle, PharmD, APh, BCACP
Manager, Ambulatory Clinical Pharmacy Services
Scripps Health, San Diego, CA



Disclosures



The presenter has no real or perceived conflicts of interest related to this presentation

Note: The content presented is for informational purposes only and is based upon the presenter(s) knowledge and opinion. It should not be relied upon without independent consultation with and verification by appropriate professional advisors. Individuals and organizations shall have sole responsibility for any actions taken in connection with the content herein. HealthTrust, the program presenter(s) and their employers expressly disclaim any and all warranties as to the content as well as any liability resulting from actions or omissions of any individual or organization in reliance upon the content.

This program may contain the mention of suppliers, brands, products, services or drugs presented in a case study or comparative format using evidence-based research. Such examples are intended for educational and informational purposes and should not be perceived as an endorsement of any particular supplier, brand, product, service or drug.

Learning Objectives



At the end of this session, participants should be able to:

1. Recognize the role of advanced practice pharmacists in optimizing medication management, enhancing adherence and standardizing the care of osteoporosis.
2. Identify the cost-saving benefits and improved access to care achieved by expanding the role of pharmacists in osteoporosis management.
3. Recall strategies to leverage technology using an advanced practice pharmacist-run osteoporosis clinic to improve patient outcomes, streamline workflows and reduce delays in treatment initiation.

Outline



- Scripps Health Overview
- Optimizing Care
- Benefits of Advance Practice Pharmacists
- Leveraging Technology
- Program Impact & Outcomes

Scripps Health – Organizational Overview



Who We Are

- Scripps Health Plan & ACO
 - Private, Nonprofit Integrated Health System
 - Serving all of San Diego County, California
 - 69,000 Managed Care Lives
 - 75,000 additional ACO lives

Key Facts

- 4 hospitals across 5 campuses
- 5 affiliated medical groups with 30+ clinics countywide
- 3,000+ affiliated physicians
- 16,000+ employees



Source: Scripps Health. Not for reuse without permission of Scripps Health

Scripps Health Ambulatory Pharmacy Services



- **Ambulatory Clinical Pharmacy Services:** Scripps Ambulatory Care Pharmacy Services provides innovative, patient-centered care through integrated clinical pharmacy expertise
- **Our Team:** Advanced Practice Pharmacists & Clinical Pharmacy Specialists embedded in multiple specialties, including **primary care, cardiology, oncology, rheumatology, advanced care, neurology, HIV, anticoagulation & specialty pharmacy**



Source: Scripps Health. Not for reuse without permission of Scripps Health

Scripps Advanced Practice Pharmacists



- Board Certified
- Advanced Practice licensed (California)
- 3+ years' experience working under Collaborative Practice Agreement (CPA)
- Credentialed & Privileged through Medical Staff Administration

Sources: Microsoft stock images.

ROLE OF ADVANCED PRACTICE PHARMACISTS IN OPTIMIZING OSTEOPOROSIS CARE



Why Osteoporosis?



Source: Getty Images. Used with permission of HealthTrust.

Osteoporosis Overview



- **Silent disease with real risk**

- Gradual deterioration of bone quality, not seen or felt until fracture or Dual-energy X-ray absorptiometry (DXA)
- Chronic disease like hypertension or type 2 diabetes → *treatments not curative*
- Real risks with both disease & treatment

- **Major osteoporotic fracture:**

- One-year mortality 20–30%
- 20% sustain second fracture within 4 years
- Economic burden: *\$34,000–\$53,000 per major fracture*

Sources: [Epidemiology of osteoporosis and fragility fractures | International Osteoporosis Foundation](#). Accessed 6/20/2025

The Association of Oral Bisphosphonate Use With Mortality Risk Following a Major Osteoporotic Fracture in the United Kingdom: Population-Based Cohort Study.

Doi: <https://doi.org/10.1016/j.jamda.2019.11.003>

Economic Burden of Osteoporotic Fractures in US Managed Care Enrollees. *Am J Manag Care*. 2020;26(5):e142-e149. <https://doi.org/10.37765/ajmc.2020.43156>

Collaborative Practice Agreement (CPA)



Centers for Disease Control & Prevention:

*A **pharmacist collaborative practice agreement (CPA)** is a formal agreement between prescriber(s) & pharmacist(s).*

*A CPA allows licensed healthcare providers to make diagnoses, supervise patient care & **refer patients to pharmacists**.*



Source: Pharmacy-Based Interventions to Improve Medication Adherence, [CDC.gov:https://www.cdc.gov/cardiovascular-resources/php/medication-adherence/index.html](https://www.cdc.gov/cardiovascular-resources/php/medication-adherence/index.html) Accessed 6/18/2025.

Getty Images. Used with permission of HealthTrust.

California Law



CA Business & Professions Code Section 4052 & 4052.6:

- Under a **collaborative practice agreement**, *Advanced Practice Pharmacist* permitted procedures include:
 - **Perform patient assessments**
 - **Order & interpret** drug therapy-related tests
 - **Refer** patients to other healthcare providers
 - **Participate** in the **evaluation & management** of diseases & health conditions *in collaboration* with other healthcare providers
 - **Initiate, adjust or discontinue** drug therapy

Source: CA Board of Pharmacy Law Book. https://www.pharmacy.ca.gov/laws_regs/pharmacy_lawbook.shtml, Accessed 6/18/2025

Workflow



Referral

**Initial
consultation**

**Coordinate
treatment**

**Injection/
Infusion
appointment**

Follow-up

Initial Consultation



APP reviews detailed **lifestyle recommendations**:

- Diet
- Supplements
- Exercise
- Dental counseling



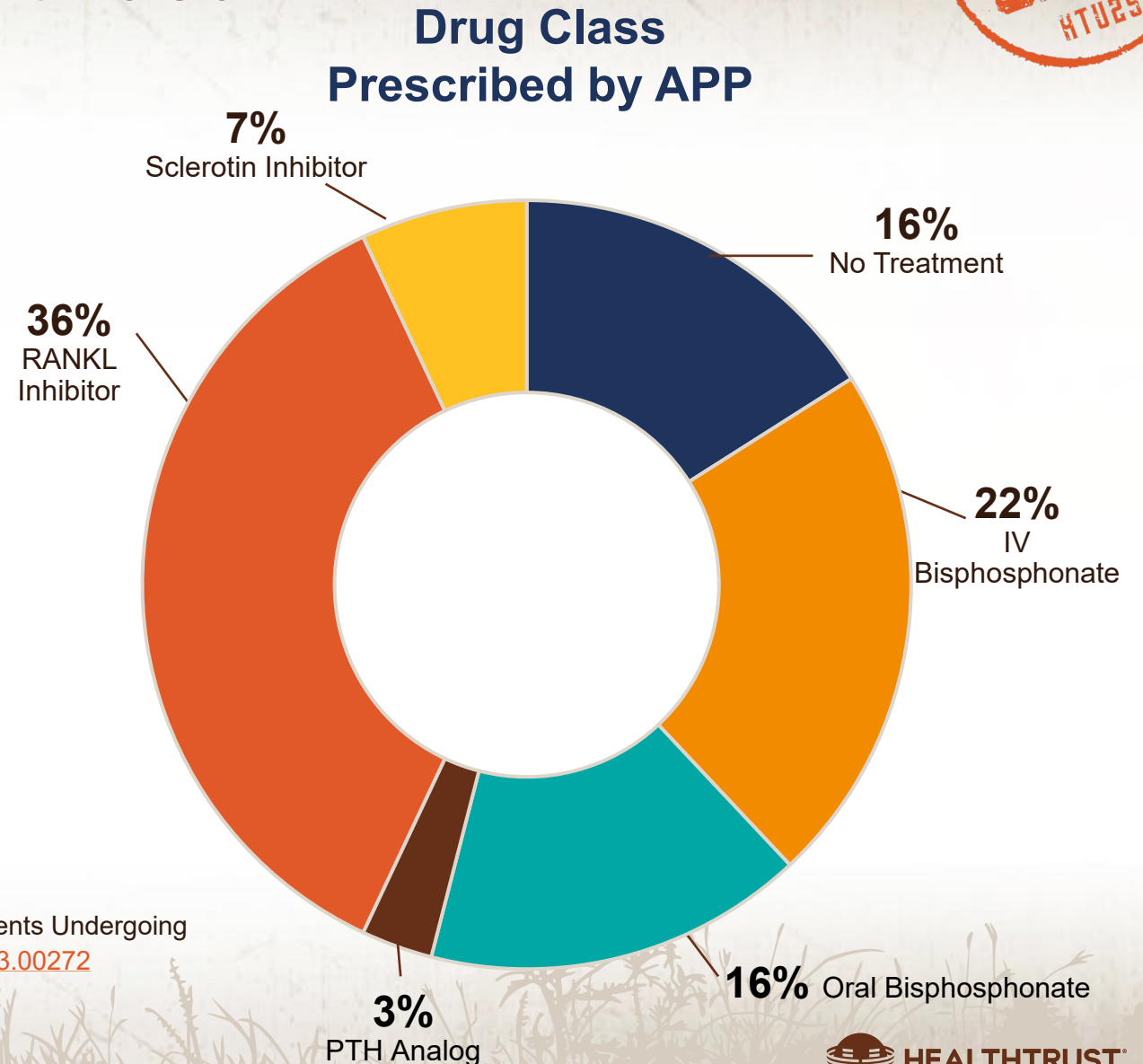
Sources: 2020 AACE/ACE Guidelines.
Getty Images. Used with permission of HealthTrust.

Initial Consultation, *continued*

Personalized approach,
emphasis on

primary prevention

- Risk stratification
- Shared decision-making
- Collaboration with spine surgeons to improve surgical outcomes



Sources: 2020 AACE/ACE Guidelines.

Impact of Teriparatide on Complications and Patient-Reported Outcomes of Patients Undergoing Long Spinal Fusion According to Bone Density. <http://dx.doi.org/10.2106/JBJS.23.00272>

Scripps Osteoporosis Clinic. Do not reuse without permission of Scripps Health.

CPA – Osteoporosis Treatment Algorithm



Scripps Adult Osteoporosis Treatment Algorithm

Adapted from 2020 AACE/ACE Osteoporosis Guidelines
(Endocr Pract. 2020;26(Suppl 1):1-36)

Lumbar spine or femoral neck or total hip T-score of ≤ -2.5 , a history of fragility fracture or high FRAX® fracture probability*

Evaluate for causes of secondary osteoporosis

(glucocorticoids, androgen-deprivation therapy, other medicines; alcohol; tobacco; eating disorder; etc)

Vitamin D deficiency

Secondary osteoporosis

Prevention, benefits and risks of medications

Very High Risk/(+)Fractures (T-score ≤ -3 , very high FRAX®, high fall risk or h/o injurious falls, recent fx, fx on approved thx, multiple fxs, fx while on meds causing skeletal harm)

- 1) zoledronic acid** (\$) (circled in red)
 - 2) denosumab (if CrCl < 35 ml/min) (\$\$\$)
 - 3) abaloparatide, teriparatide or romosozumab (\$\$\$\$)
- Alternate therapy: alendronate, risedronate (\$)

- 1) zoledronic acid** (\$) (circled in red)
- 2) denosumab (if CrCl < 35 ml/min) (\$\$\$)
- 3) abaloparatide, teriparatide or romosozumab (\$\$\$\$)
- Alternate therapy: alendronate, risedronate (\$)

Reassess yearly for response to treatment. Consider FRAX®, BMD and/or bone turnover markers as clinically indicated

Increasing or stable BMD and no fractures

Consider a drug holiday after 5 years oral or 3 years IV bisphosphonate therapy

Resume therapy when a fracture occurs, BMD declines beyond LSC, BTM's rise to pretreatment values or patient meets initial treatment criteria

Progression of bone loss or recurrent fractures

- Assess compliance
- Re-evaluate for causes of secondary osteoporosis and factors leading to suboptimal response to therapy

- Switch to injectable antiresorptive if on oral agent
- Switch to anabolic if on injectable antiresorptive or at very high risk of fracture

Reassess yearly for response to treatment. Consider FRAX®, BMD and/or bone turnover markers as clinically indicated

Denosumab

Continue therapy or consider adding PTH/PTHrP analog if progression of bone loss or recurrent fractures

Abaloparatide or teriparatide for max 2 years†

Sequential therapy with oral or injectable antiresorptive to maintain gains to bone mass

Romosozumab for 1 year

Sequential therapy with oral or injectable antiresorptive to maintain gains to bone mass

Zoledronic acid

- If stable, continue therapy for 6 years‡
- If progression of bone loss or recurrent fractures, consider switching to anabolic

* 10-year major osteoporotic fracture risk- High Risk: $\geq 20\%$ or hip fracture risk $\geq 3\%$; Very High Risk: $\geq 30\%$ and $\geq 4.5\%$ respectively

** Medications listed in order of preference due to efficacy and cost effectiveness

† Avoid PTH/PTHrP analogs in pre-existing hypercalcemia or underlying hypercalcemic disorders, hyperparathyroidism, Paget's disease, hx of bone cancer, hx of skeletal irradiation. Caution in severe renal impairment or h/o renal stones.

‡ Consider a drug holiday after 6 years of IV zoledronic acid. During the holiday, an anabolic agent or raloxifene may be used.



**Goal: Reduce
treatment
failure due to
side effects &
compliance
issues**

Adherence & Follow-up

- **Scheduling: Proactive approach**
Closely track treatment due dates, timely outreach & follow-up to prevent delays
- **Lab Monitoring: Monitor & address issues early** to avoid treatment interruptions
- **Side Effect Management: Early identification & resolutions**
Address side effects, compliance, costs & other med access issues
 - **Scheduled Follow-Up:** 1 week for initial injections or infusions; 2 & 6 months for new prescriptions

Coordinated Patient Access



Estimates

- Providing estimates up-front for high-cost treatments
- Switch to alternatives when cost-prohibitive



Prior Authorization

- Payor & Plan-specific ordering requirements to shorten wait time
- Coordinate with Prior Auth team to obtain authorization, appeals



Financial Assistance

- Liaise with Financial Assistance team to obtain manufacturer assistance & grants when available

Sources:

Scripps Health. Not for reuse without permission of Scripps Health
Getty Images. Used with permission of HealthTrust.

BENEFITS OF EXPANDING THE ROLE OF ADVANCED PRACTICE PHARMACISTS



Financial Efficiency & Cost Containment

Enhancing Financial Efficiency & Accuracy

- **Error Identification & Resolution:** Addressed billing errors & systemic issues related to unit size
- **Charge Accuracy:** Improved reimbursement & prevented double-billing
- **Cost-Conscious Protocols:** Followed standardized protocols prioritizing cost efficiency when clinical outcomes are equivalent
- **Denial Management:** Implemented a robust denial tracking & resubmission process to recover payments & minimize financial losses



Improving Access: Bringing Care to the Patient

- **Care Where Patients Are**
Treatment delivered in clinics countywide
- **Embedded Expertise**
Advanced Practice Pharmacists in clinics
- **Expanded Access**
Faster appointment with APP versus specialists



Source: Getty Images. Used with permission of HealthTrust.

Optimizing Care: A Systemwide Approach



- **Standardized Treatments:** Guideline-directed therapies ensuring all patients receive consistent, high-quality care by adhering to the latest clinical guidelines
- **Standardized Workflows Across Rx Teams:** Unified processes between Osteoporosis APPs, prior authorization, financial assistance, retail & specialty pharmacies to enhance efficiency
- **Centralized Care Management:** Pharmacist Osteoporosis Clinic managing patients across 30+ clinics
- **Systemwide Engagement:** Standardized workflows rolled out to primary care & specialty clinics → creating a more cohesive & efficient care system



Source: Getty Images. Used with permission of HealthTrust.

LEVERAGING TECHNOLOGY TO OPTIMIZE WORKFLOWS



Partner with Information Systems (IS)



What tools are available in your EHR for Care management or Population Health management?

What have we done at Scripps?

Source: Getty Images. Used with permission of HealthTrust.

Provider Referral



Ambulatory Referral to APP Clinical Pharmacists ✓ Accept ✗ Cancel

Class: Internal Referral Outgoing Referral

Referral: ☐ Override Restrictions

To Department:

To Department Specialty:

To Provider:

Reason:

Priority: ☐ Elective ☐ Emergency ☒ Routine ☐ Urgent

Please indicate which service this referral is intended to be used for:

| | | | | | |
|------------------------------|---------------------|--------------------------|------------------|--------------|-----------|
| Osteoporosis | Advanced Cardiology | Hyperlipidemia | Hypertension | HIV/PrEP | Neurology |
| Comprehensive Med Management | Oral Oncology | Dermatology | Gastroenterology | Rheumatology | |
| Multiple Sclerosis | Viral Hepatology | Other Specialty Pharmacy | | | |

Additional Order Details

Next Required ✓ Accept ✗ Cancel

- Used for all **Amb Clinical Pharmacy** services
- **Familiar** process to providers
- **Training & tip sheets** provided on how to order referral to our team

Referral Workqueue



Track & manage incoming referrals; manage deferrals; appointment cancellations & follow-up process; shared notes

← → APP AMB CARE PHARM READY TO SCHEDULE WQ [3732]

Referral/Authorization Workqueue APP AMB CARE PHARM READY TO SCHEDULE WQ [3732]

Refresh Show All Edit Defer Assign Show Mine Notes Edit w/ Related Rfls Sched St Mv Files Save

Active (Total: 27) Deferred (Total: 370)

| Referra... | Notes | Start Date | Exp Date | Pharm |
|------------|-------|------------|------------|-------|
| 14982131 | Yes | 09/13/2024 | 09/13/2025 | Ostec |
| 15004079 | Yes | 09/17/2024 | 09/17/2025 | Ostec |
| 16044446 | Yes | 02/28/2025 | 02/28/2026 | Ostec |
| 16173282 | Yes | 03/20/2025 | 03/20/2026 | Ostec |

Workqueue Notes

| Comment | Entered | User |
|--|--------------------|------|
| patient going in to a meeting will send a portal message with call back number | 3/3/2025 3:02 PM | Aqui |
| patient currently in a meeting, said she has a lot of stuff going on and a surgery coming up, f/u in 1 month | 3/10/2025 1:12 PM | Aqui |
| lmtcb + portal | 6/10/2025 10:09 AM | Garc |

Intra-departmental Notes



“Blue sticky” with patient details, viewable for all in dept:

- Referring provider, date & reason
- Labs or imaging due
- Patient preferences (clinic location, preferred APP, route of billing)
- Patient-specific details (hard of hearing, speak with family member, schedule extra time)

**Convenient place to dictate info when pre-charting without needing to bounce between areas within Epic.*

Pharmacy Comments

Enc - poonam
4/14/25 Walker, ([redacted] MD
Dexa 4/21/22
Labs utd
On Alendronate, but reporting severe GERD.
Needs to stop alendronate.
Please assess. Needs some med due to
prednisone, risk of accelerated osteoporosis.

Last updated: 2 months ago by Aquino, [redacted]

Source: Scripps Osteoporosis Service. Not for reuse without permission of Scripps Health.

Pre-enrollment Questionnaire



Osteoporosis-specific questionnaire

- Sent prior to initial consultation to gather key information
- → *Guides risk stratification & treatment options*

| Question | 5/30/2025 12:41 PM PDT - Filed by Patient |
|---|---|
| Do you have any history of non-traumatic fractures as an adult (e.g., after tripping or falling from standing height)? | No |
| Do you have any history of falls? | No |
| Have you lost any height? | No |
| Has anyone in your immediate family (parents or siblings) ever broken a hip? | No |
| Does anyone in your immediate family (parents or siblings) have osteoporosis that you know of? | Yes |
| Relationship to you? | Mother & grandmother |
| Have you ever taken medication(s) to treat Osteoporosis (e.g., Fosamax (alendronate), Actonel (risedronate), Reclast (zoledronic acid), Prolia (denosumab), Forteo (teriparatide))? | Yes |
| Name of the medication(s)? | Actonel, Zometa, Fosamax |
| Estimated start and stop date of each medication taken? | 2011- Fosamax but got diarrhea then switched to Actonel 2011 to 2013 - stopped in 2013 during chemotherapy. Received a dose of Zometa in 2014 but had diarrhea so switched back to Actonel, Restarted 2014 to 2023. |
| Do you have a history of Rheumatoid Arthritis? | No |
| Have you ever taken a steroid medication such as prednisone, cortisone (or any other) for No | |

Question

Do you have any history of non-traumatic fractures as an adult (e.g., after tripping or falling from standing height)?

Do you have any history of falls?

Have you lost any height?

Has anyone in your immediate family (parents or siblings) ever broken a hip?

Leveraging Technology

Streamlining Tasks



Need for efficient, structured care management

- **EpicCare Ambulatory Episodes of Care**

Functionality embedded in EHR based on assigned tasks, daily/weekly/monthly reports

- Reduced manual tracking: Eliminated errors
- Bulk patient lists for outreach & follow-up
- Simplified collaboration across the team, promotes continuity of care
- Standardized care pathways
- Increased reporting capabilities

Episode of Care



← → SnapShot Chart Review Problems Medications Episodes... Re

Osteoporosis Prolia

+ New Episode Select Episode ✓ Resolve ✕ Delete

Episode Info

Episode Details

Name: Osteoporosis Prolia Comment

Type: Medication Management

Noted: 4/17/2025

Resolved:

*Patients are enrolled
in an episode of care*

Episode Name
Filter & track
sub-populations

Noted & Resolved
Track enrollment &
discharge dates


Sources : <https://galaxy.epic.com> Plan Your Remote Patient Monitoring Strategy.pdf
Scripps Osteoporosis Service. Not for reuse without permission of Scripps Health.

Checklist Tasks

Checklist Tasks enable team to **collaborate effectively** by assigning responsibilities & due dates.

Each user or group works from a daily report to stay organized & track progress:

- Shared across the team
- Easily accessible in patient's chart
- Assign *Responsible User* or *Pool* & *Due date*
- **Task Groups**: Assign multiple related tasks simultaneously, typically performed together or in sequence, with pre-assigned *Responsible User* or *Pool*



| | | | | |
|-------------------------------------|-------------|---|-------------|-----------|
| All | | | | |
| <input type="checkbox"/> | JUN 19 2025 | Appointment scheduling TECHNICIAN AMB CARE (APP CLINIC) POOL Inj @ Enc due 7/18/25, B&B | Not Started | 6/18/2025 |
| <input type="checkbox"/> | JUL 13 2025 | Labs TECHNICIAN AMB CARE (APP CLINIC) POOL Needs VitD by 7/15/26 | Not Started | 6/5/2025 |
| <input type="checkbox"/> | — | DEXA Amy Catherine Turner, PharmD Due 8/20/26 Mercy Hosp | Not Started | 6/18/2025 |
| <input checked="" type="checkbox"/> | JUN 19 2025 | (Re)order medication Completed by Turner, Amy Catherine on 6/19/2025 | Completed | 6/18/2025 |
| <input checked="" type="checkbox"/> | JUN 19 2025 | Copay Completed by Turner, Amy Catherine on 6/19/2025 | Completed | 6/18/2025 |

Source: Scripps Osteoporosis Service. Not for reuse without permission of Scripps Health.

Daily reports → Checklist Tasks



| Tasks Due | Patient Notes | Episode Name | OST Med | Pharmacist | Episode Creation Date |
|------------|---|-------------------------|---|------------|-----------------------|
| 06/20/2025 | Comments: Annuals in June, Prolia Husband John NEXT DOSE DUE: 07/13/25 Patient Injection Clinic: SCEN Buy and Bill: Yes 340B workflow: Specialty pharmacy: | Osteoporosis Prolia | Prolia syringe - 60 mg/mL | Poonan | |
| 06/21/2025 | Comments: initial 2018, annual 08/20/24 Reclast Infusion, Recalst infusion 9/27/24 NEXT DOSE DUE: 9/27/25 Patient Injection Clinic: COJF Buy and Bill: Specialty pharmacy: | Osteoporosis Reclast | zoledronic acid-mannitol-water - 5 mg/100 mL | | |
| 06/23/2025 | Comments: initial 04/25/24. Evenity started 12/6/24 NEXT DOSE DUE: 6/20/2025 Patient Injection Clinic: SCEN Buy and Bill: Yes | Osteoporosis Evenity | romosozumab-aqqg - 210mg/2.34mL (105mg/1.17mLx2) | | |

↑ Scroll to select

Tasks To Do
 [Show My Tasks](#)

Due Soon

Tolerability/adherence
 Assigned to: Poonan Due: 6/20/2025.
 06/06/25- reported diarrhea after 3 doses, send portal to follow up after 1-2 weeks. Pdp
 2 month Fosamax, send portal

Upcoming

Tolerability/adherence
 Assigned to: Technician Amb Care (App Clinic) Pool. Due: 10/10/2025.
 6 month Fosamax

Appointment scheduling
 Assigned to: Technician Amb Care (App Clinic) Pool. Due: 3/10/2026.
 Schedule annual Fosamax due 04/10/26

DEXA
 Assigned to: Poonan Due: 1/13/2027.
 Last 02/13/25, ENC

Checklist Tasks



Checklist

| | | | | |
|-------------------------------------|----------------|--|-------------|---|
| <input type="checkbox"/> | AUG 19 2025 | Appointment scheduling D Lam, PharmD Date Added: 6/17/2025 Evenity # 5 | Not Started | ✕ |
| <input type="checkbox"/> | DEC 28 2027 | DEXA D Lam, PharmD Date Added: 5/6/2025 Last 1/28/25 ME | Not Started | ✕ |
| <input type="checkbox"/> | — | (Re)order medication D Lam, PharmD Date Added: 3/26/2025 | Not Started | ✕ |
| <input checked="" type="checkbox"/> | JUN 17 2025 | Appointment scheduling Completed by Lar on 6/17/2025 Date Added: 4/8/2025 Completed: 6/17/2025 Evenity 6/9/25 ka - lmtcb, need to reschedule 04/15/25 pl- lmtcb + portal Evenity #3 | Completed | |

Reports for Clinic Management



Management Reports – Weekly & Monthly Use to monitor workload, assess daily & long-term staffing needs, employee productivity, program referral volume, lost-to-follow-up

- Resolved Episodes
- Incomplete Tasks
- Completed Tasks
- Master List
- Revenue
- Pharmacist Appointments
- No Assigned Tasks

Source: <https://galaxy.epic.com/Redirect.aspx?DocumentID=100239494&PrefDocID=161881>, last accessed 6/17/2025

Additional Tools



Note Dictation Tools



Video & Telehealth Visits



Other EHR Tools

FYI Flags for Financial Assistance
Problem List
Care Team
Shared templates
MyChart Care Companion

Sources: Microsoft stock images.
Getty Images. Used with permission of HealthTrust.

Future Opportunities for Implementation



Compass Rose

- Additional Tasks functionality & automation
 - Outreach Tasks in addition to Checklist Tasks
 - Specific Lab Tasks w/ links to order
- Automation responsible user & due dates for standardized groups of tasks
- Case Team in addition to Care Team
- Social Determinates of Health for complex case management
- Management Enhancements
 - Dashboards
 - Additional Reports

Artificial Intelligence

- Functionality under development:
 - Ambient note writing, patient message responses, results responses
 - Diagnostics
 - Imaging
 - Administrative efficiencies
 - Virtual Health Assistants
 - Population Health management
 - Remote monitoring & wearables
 - & more

Sources: 1. www.galaxy.epic.com Galaxy - Overview of Compass Rose Comprehensive Care Management; 2. www.galaxy.epi.com Galaxy - Compass Rose Programs Setup and Support Guide; 3. Compass Rose™ Implementation in a Large Academic Medical Center doi: [10.1016/j.rcsop.2024.100462](https://doi.org/10.1016/j.rcsop.2024.100462)

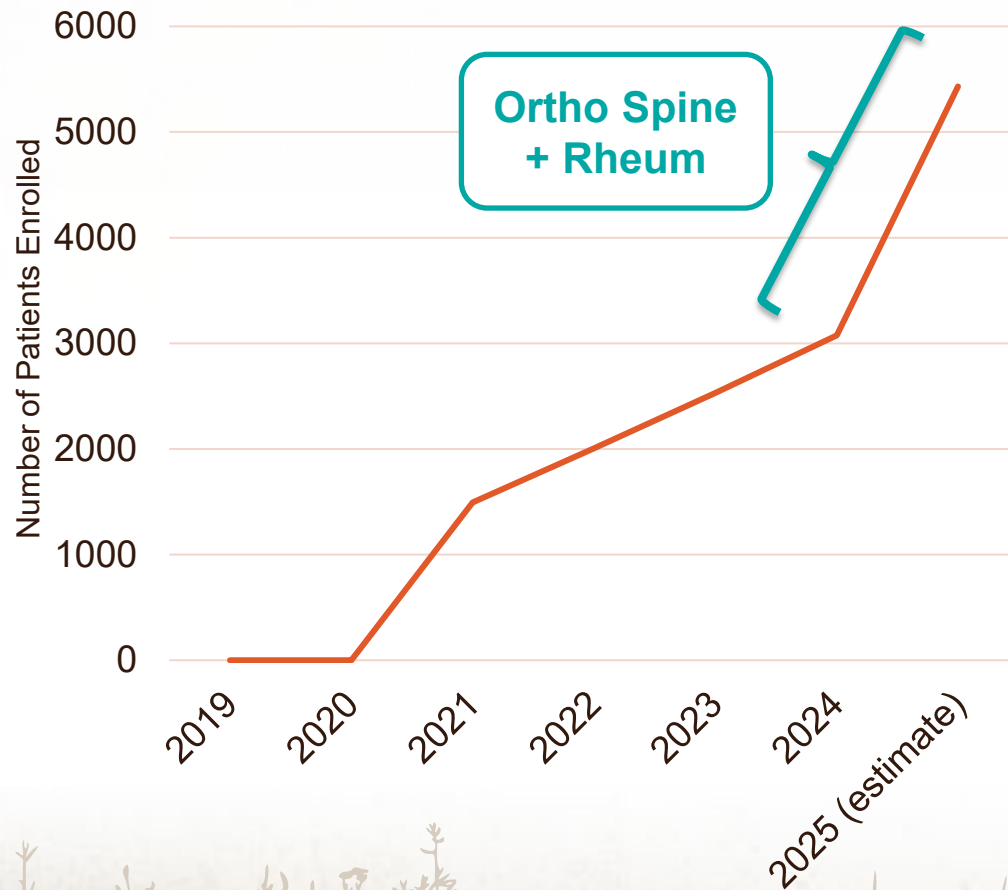
PROGRAM IMPACT & OUTCOMES



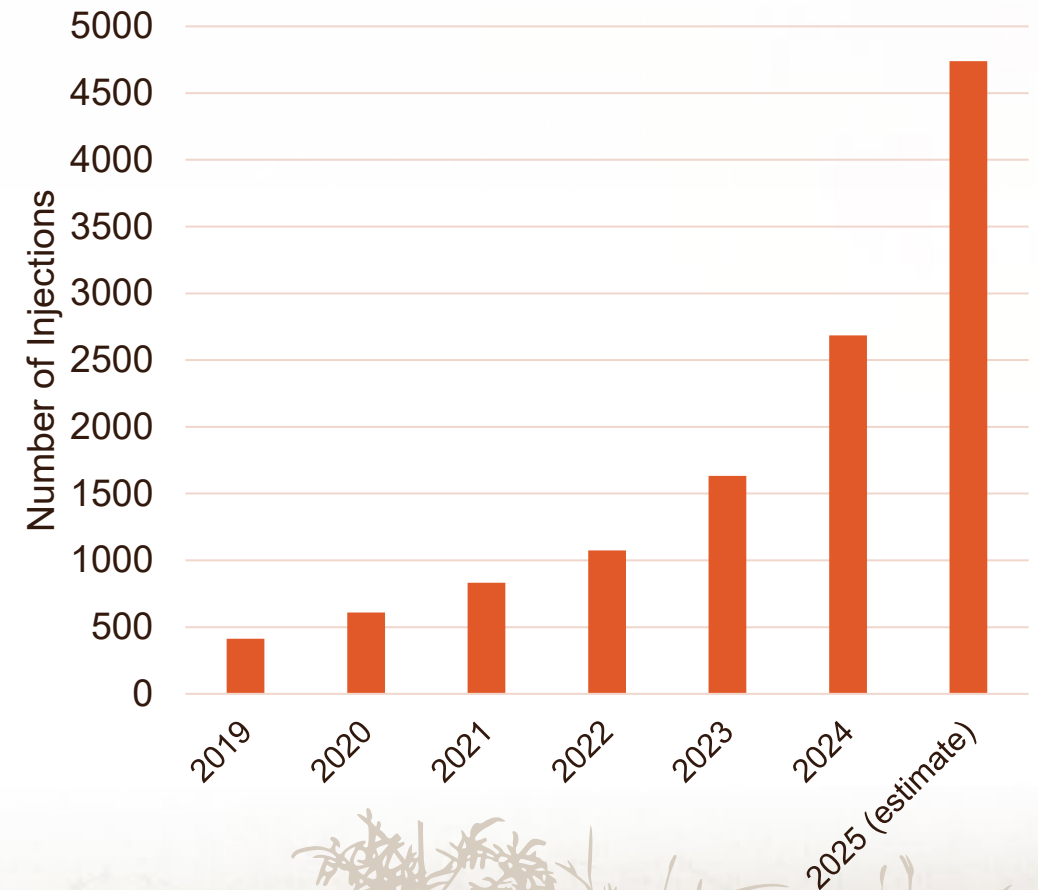
Sustained Growth Over Time



Cumulative Enrollment

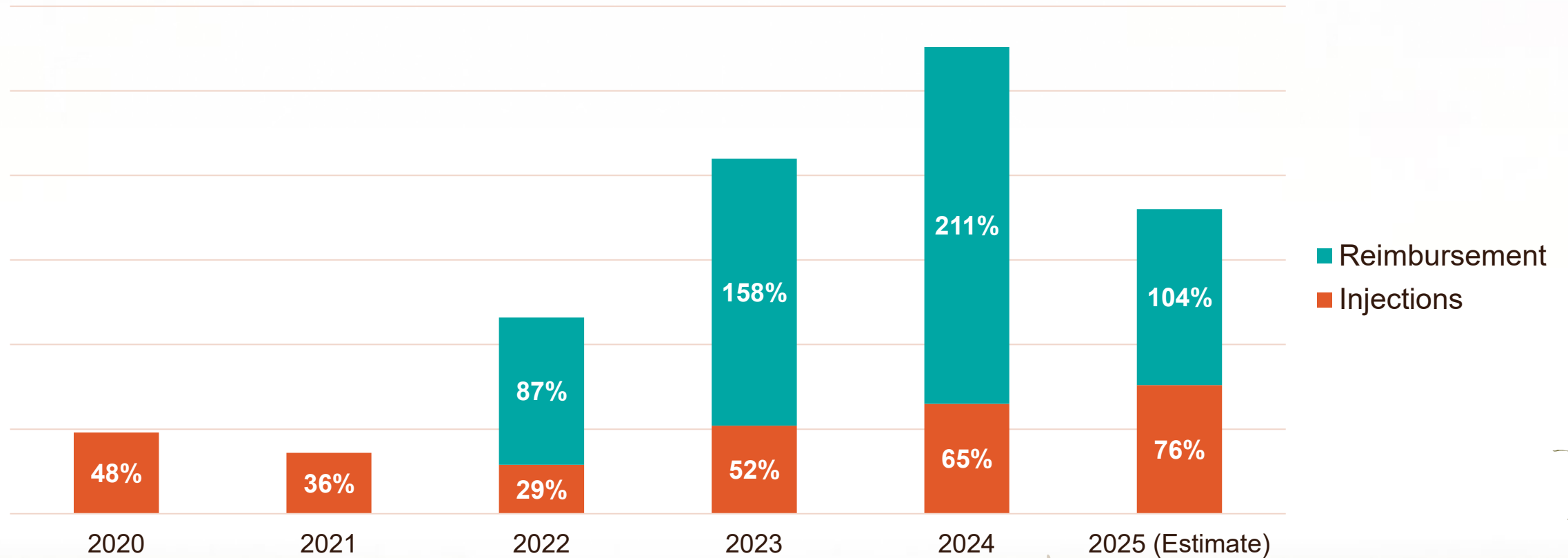


Injection Administrations



Source: Scripps Osteoporosis Clinic. Not for reuse without permission of Scripps Health.

Year-over-year Program Growth

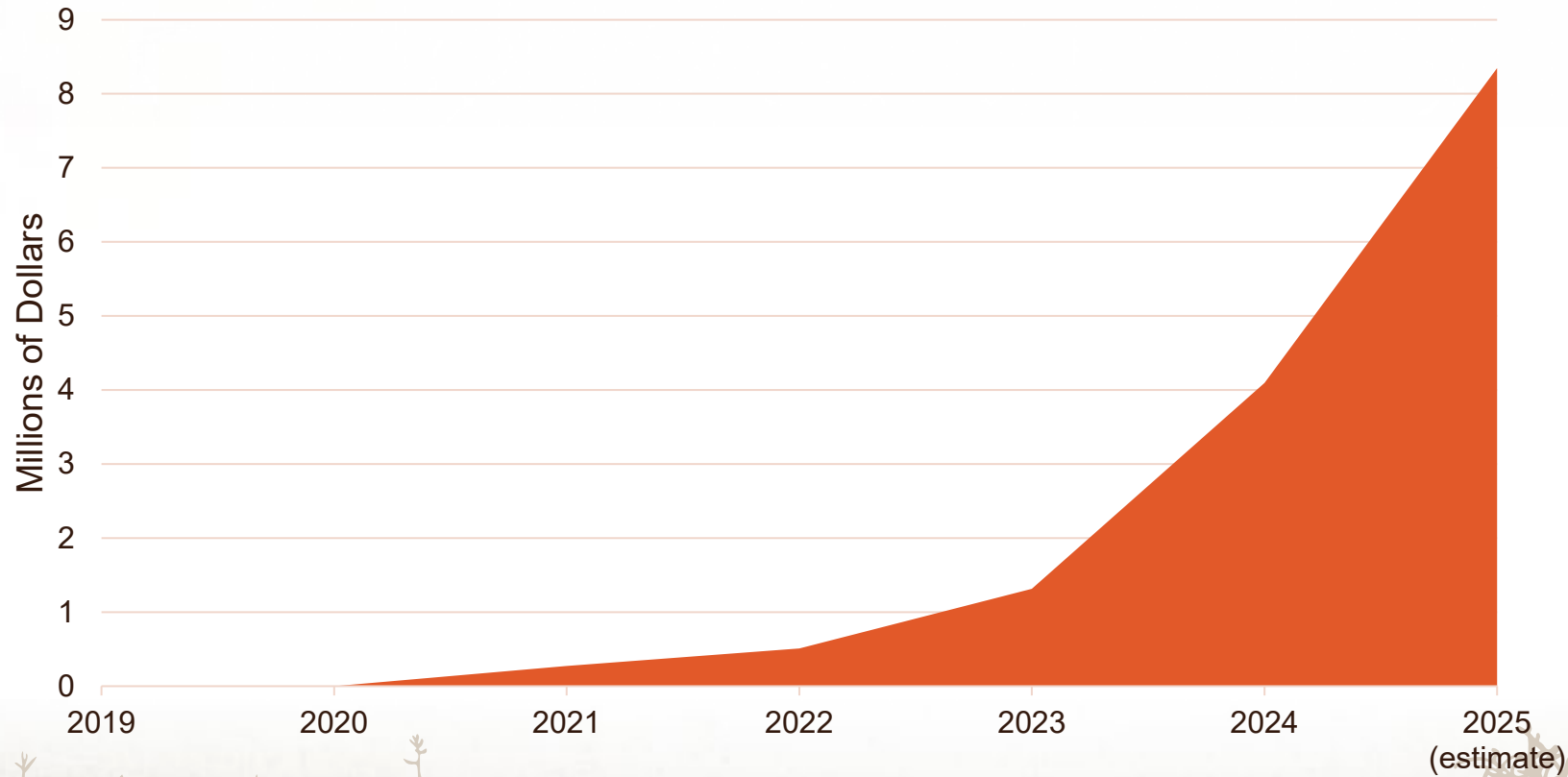


Source: Scripps Osteoporosis Clinic. Not for reuse without permission of Scripps Health.

Improved Reimbursement



Sum of Reimbursement
(Millions of Dollars)

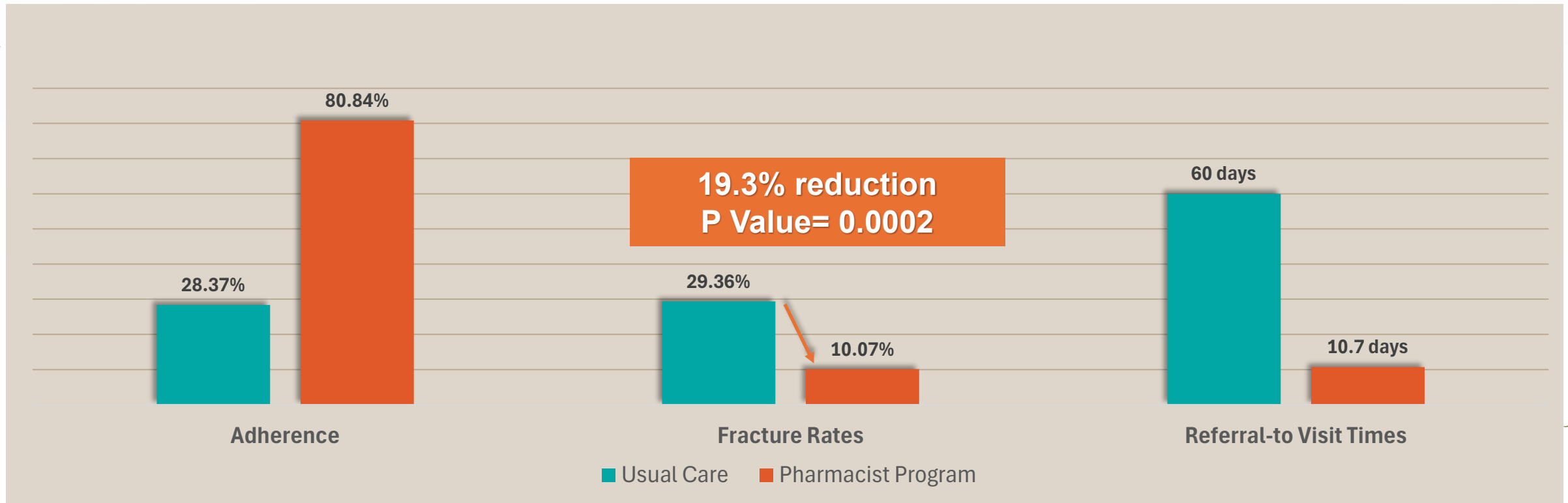


Health System
reimbursement
by year, shown in
millions of dollars.
Dollars are **not**
cumulative.

Source: Scripps Osteoporosis Clinic. Not for reuse without permission of Scripps Health.

Improved Patient Outcomes

Medication Use Evaluation



- Improved adherence
- Reduced fracture risk
- Increased access

Source: Scripps Osteoporosis Clinic. Not for reuse without permission of Scripps Health.

Summary: Process Improvements & Outcomes



- **Improved Access**

Reduced wait times & enhanced access to rheumatologists for timely diagnosis & treatment

- **Patient Repatriation**

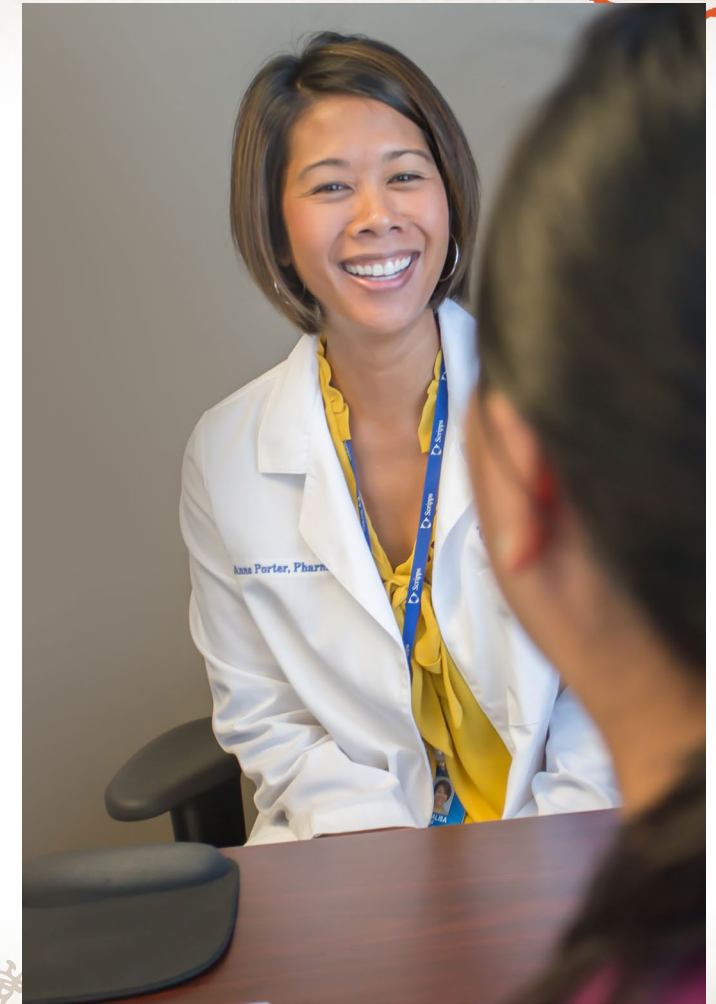
- **Reimbursement Optimization**

Refined billing processes to contain drug costs while maximizing reimbursement

- **Standardized Osteoporosis Management**

Collaborative Practice Agreement (CPA) & protocols to ensure systemwide consistency

- **Improved Patient Care:** Fracture reduction



Source: Scripps Health. Not for reuse without permission of Scripps Health



ASSESSMENT QUESTIONS



Source: Microsoft stock images.





Assessment Question #1

Which of the following is a key responsibility of Advanced Practice Pharmacists in osteoporosis care?

- A. Initiating or adjusting therapies
- B. Monitoring labs to prevent treatment delays
- C. Conducting early assessments for side effects & cost concerns
- D. Standardizing protocols for medication use
- E. All of the above



Answer: Assessment Question #1

Which of the following is a key responsibility of Advanced Practice Pharmacists in osteoporosis care?

- A. Initiating or adjusting therapies
- B. Monitoring labs to prevent treatment delays
- C. Conducting early assessments for side effects & cost concerns
- D. Standardizing protocols for medication use
- E. **All of the above**



Assessment Question #2

How do pharmacists enhance adherence in osteoporosis treatment?

- A. By providing one-week, two-month, & six-month follow-ups
- B. By addressing compliance & access issues early
- C. Both A & B
- D. Neither A nor B



Answer: Assessment Question #2

How do pharmacists enhance adherence in osteoporosis treatment?

- A. By providing one-week, two-month, & six-month follow-ups
- B. By addressing compliance & access issues early
- C. Both A & B
- D. Neither A nor B

Assessment Question #3



What key outcomes were achieved through leveraging technology in the Advanced Practice Pharmacist-run osteoporosis clinic?

- A. Improved patient therapy compliance from 20% to 80%
- B. Reduced fracture rates by 20%
- C. Optimized billing practices, decreased referral times & expanded access to care
- D. All of the above



Answer: Assessment Question #3

What key outcomes were achieved through leveraging technology in the Advanced Practice Pharmacist-run osteoporosis clinic?

- A. Improved patient therapy compliance from 20% to 80%
- B. Reduced fracture rates by 20%
- C. Optimized billing practices, decreased referral times & expanded access to care
- D. **All of the above**

References



1. [Epidemiology of osteoporosis and fragility fractures | International Osteoporosis Foundation](#). Accessed 6/20/2025
2. The Association of Oral Bisphosphonate Use With Mortality Risk Following a Major Osteoporotic Fracture in the United Kingdom: Population-Based Cohort Study. Doi: <https://doi.org/10.1016/j.jamda.2019.11.003>
3. Economic Burden of Osteoporotic Fractures in US Managed Care Enrollees. *Am J Manag Care*. 2020;26(5):e142-e149. <https://doi.org/10.37765/ajmc.2020.43156>
4. Pharmacy-Based Interventions to Improve Medication Adherence, CDC.gov: <https://www.cdc.gov/cardiovascular-resources/php/medication-adherence/index.html> Accessed 6/18/2025
5. CA Business & Professions Code. Chapter 9, Division 2, Article 3, Sections 4052-4052.6. Accessed 6/18/2025
6. Camacho PM, Petak SM, Binkley N, Diab DL, Eldeiry LS, Farooki A, Harris ST, Hurley DL, Kelly J, Lewiecki EM, Pessah-Pollack R, McClung M, Wimalawansa SJ, Watts NB. American Association of Clinical Endocrinologists/American College of Endocrinology Clinical Practice Guidelines for the Diagnosis and Treatment of Postmenopausal Osteoporosis 2020 Update. *Endocr Pract*. 2020 May;26(Suppl 1):1-46. doi: 10.4158/GL-2020-0524SUPPL. PMID: 32427503.
7. <https://galaxy.epic.com> Plan Your Remote Patient Monitoring Strategy.pdf. Accessed 6/17/2025
8. <https://galaxy.epic.com/Redirect.aspx?DocumentID=100239494&PrefDocID=161881>. Accessed 6/17/2025
9. www.galaxy.epic.com Galaxy - Overview of Compass Rose Comprehensive Care Management. Accessed 6/17/2025
10. www.galaxy.epic.com Galaxy - Compass Rose Programs Setup and Support Guide. Accessed 6/17/2025
11. Compass Rose™ Implementation in a Large Academic Medical Center doi: [10.1016/j.rcsop.2024.100462](https://doi.org/10.1016/j.rcsop.2024.100462). Accessed 6/17/2025



HEALTHTRUST®
UNIVERSITY CONFERENCE

Thanks y'all!



Amy McKaskle, PharmD, APh, BCACP

mckaskle.amy@scrippshealth.org