

# Sustaining Regional Orthopedic Collaboration: A 25-Year Endeavor in Locomotive Syndrome Prevention

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LOGO FOR CONGRESS OR INSTITUTION

## 1. Background /Introduction

Japanese aging population has led to a rise in geriatric emergencies, including fragility fractures. Elderly patients are at high risk for recurrent fractures, which significantly impact their quality of life (QOL) and increase caregiving burdens. To address these challenges, we established the Yagoto Orthopedic Regional Medical Collaboration 25 years ago. Over the past quarter century, regional orthopedic collaboration has evolved into a comprehensive, multidisciplinary effort, integrating fracture prevention, osteoporosis management, and community-based initiatives to address locomotive syndrome. Through pathways such as the proximal femur fracture regional collaboration model and the Fracture Liaison Service (FLS), healthcare teams have combined fall prevention with osteoporosis prevention, while raising community awareness of liaison loco prevention to ensure healthier, more active lives for the aging population.

## 2. Footprints of Regional Orthopedic Collaboration

**1999** – Initiated regional medical collaboration for musculoskeletal disorders in the Yagoto district, eastern Nagoya.

(a) Yagoto Orthopedic doctor Association: Physician-focused regular training sessions, accredited for specialist CME credits, important forum for information exchange, held four times a year with ~50 participants each session; 100 sessions held by December 2024. (Fig.1-a)

(b) Yagoto Orthopedic Medical staff Collaboration: Multidisciplinary, multi-institutional training meetings, twice annually, with ~100 participants each time; 56 sessions held by November 2024. (Fig.1-b)

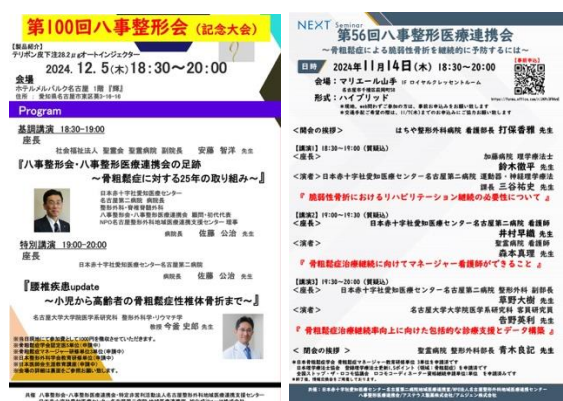


Fig.1-a

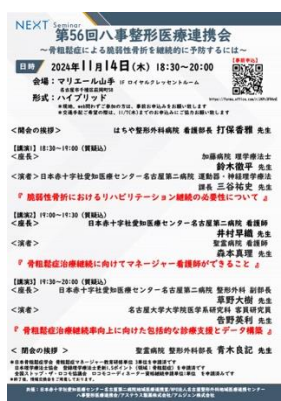


Fig.1-b

phase	Acute phase	Recovery period	Life period, maintenance period
Diagnosis			
Treatment & Drugs			
Rehabilitation			
Social security			
Family			
Stay	Emergency hosp.	Rehabilitation hosp.	Home, Facilities
Medical insurance			Aged care insurance
period	About two weeks	Within 3 months	After that
	Osteoporosis and fall prevention		Nutritional guidance

Fig.2

**2003** – Developed and implemented a regional clinical pathway for proximal femoral fractures, covering acute, recovery, and maintenance phases; applied not only within facilities but across the community. (Fig.2)

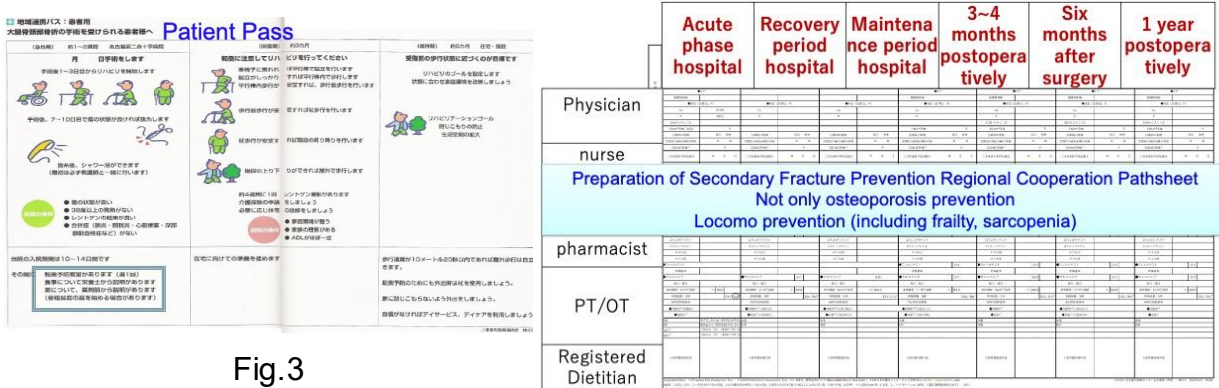


Fig.3

**2006** – Revised the regional pathway to emphasize not only treatment of fragility fractures but also prevention, launching osteoporosis prevention, fall prevention, and locomotive syndrome prevention. (Fig.3)

**2007** – Developed patient education tools and materials usable in all care phases; prepared public lecture texts and placed materials in medical institutions and pharmacies; created the preventive education leaflet "Locomo Challenge", with periodic updates thereafter. (Fig.4)

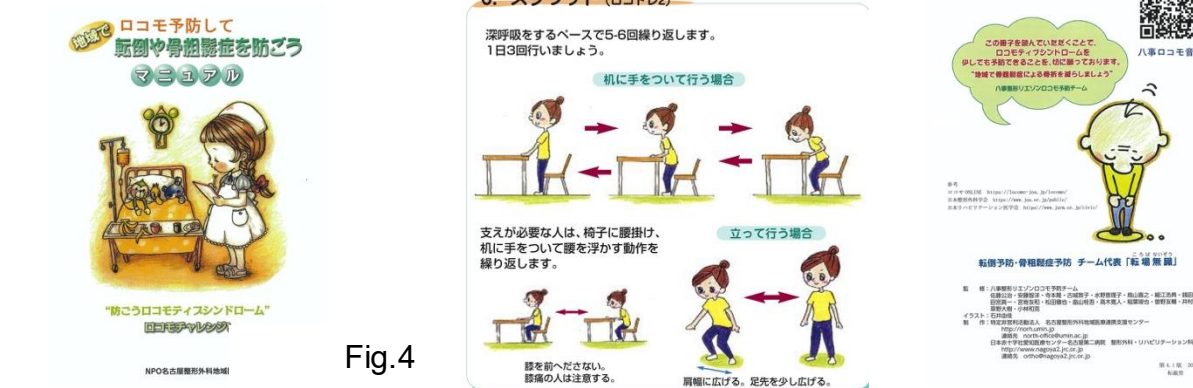


Fig.4

**2008** – Began public lectures and awareness activities for the general public: Yagoto Foot Health Class, later expanded in 2013 to Yagoto Locomo Health Class with multidisciplinary lectures; conducted outreach lectures for staff and citizen; during the COVID-19 pandemic in 2021, held online seminars; created the Yagoto Locomo Ondo dance. (Fig.5)



Fig.5 Yagoto Locomo Ondo dance ver.1 / STAY HOME Let's Stretch

– Emphasized human resource development from the outset: in 2014, trained Osteoporosis Liaison Service (OLS) Managers (Japan Osteoporosis Society); in 2022, trained Fracture Liaison Service (FLS) Coordinators (FFN-J). Professional certification served to consolidate knowledge and was undertaken by multiple disciplines. (Fig.6)

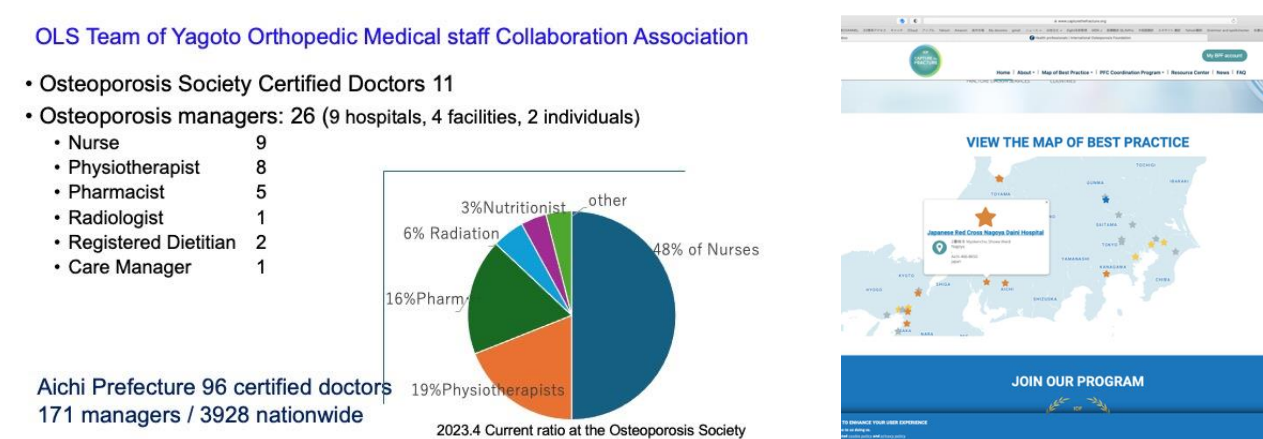


Fig.6

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Keywords  
Locomotive Syndrome Prevention, Regional Multidisciplinary Collaboration, Regional Medical Network, Fragility Fracture Liaison Service

**2011** – Established the Nagoya Orthopedic Regional Medical Collaboration Support Center, a certified NPO, to facilitate cooperation with government agencies. Secured official seals, operated with transparency to ensure sustainability, and conducted fundraising. (Fig.7)



Fig.7 NPO  
Home page: <http://norh.umin.jp/>  
E-mail: [norh-office@umin.ac.jp](mailto:norh-office@umin.ac.jp)

**2015** – Contributed to the revision of the 3rd edition (2021) of the Guidelines for Femoral Neck and Trochanteric Fractures, authoring sections on postoperative OLS and FLS. (Fig.8)

**2018** – Opened the Locomo Preventive Outpatient Clinic under the motto "Anytime, Anywhere, Anyone," in cooperation with neighboring facilities. (Fig.9)

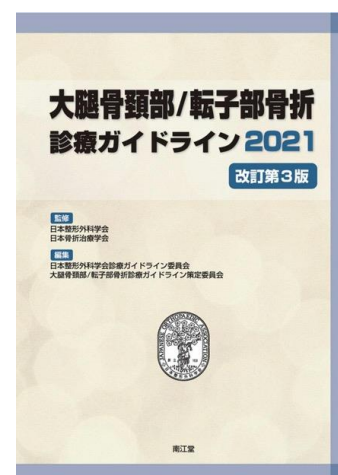


Fig.8

Locomo Preventive Outpatient Clinic 2018~  
Anytime, anywhere, anyone  
Locomo Preventive Outpatient Clinic

- Patients with locomotor diseases
  - Extended healthy life expectancy (Locomo, sarcopenia, frailty, osteoporosis, fall prevention)
  - Substance
    - X-ray examination, bone mineral quantification test
    - blood test
    - Medication and nutritional evaluation and guidance
    - Physical Examination
    - Individual exercise and/or instruction
- Use the manual "Let's prevent falls and osteoporosis in the community"

Fig.9

**2025** – Hosting the 13th Annual Scientific Meeting of the Japan Fragility Fracture Network, serving as a culmination of our work to date.

– National health policy developments followed our initiatives:

- 2006 – Regional clinical pathway for proximal femoral fracture included in the national medical fee schedule.
- 2022 – Secondary fracture prevention (FLS) included in the national medical fee schedule.

## 3. Discussion

To ensure the continuation and development of regional cooperation associations, it is important to always take on new challenges and expand activities with strong leadership and passion. Smooth communication among coordinators should be maintained, with plenary meetings held twice a year and coordinator meetings three times a year. Social gatherings, such as informal "drinking communication," along with mailing lists and LINE, can help strengthen connections. It is also essential to gather good friends, respect and trust one another, and create an environment where everyone feels comfortable speaking. The current issue is generational change, and we need to find ways to make our organization and activities more sustainable.

## 4. Conclusion

Regional collaboration plays a vital role in promoting multidisciplinary collaboration and advancing team care in the community. In particular, the proximal femur fracture regional collaboration path serves as a foundation for integrating fall prevention and osteoporosis prevention efforts. By raising awareness of liaison locomotive syndrome (locomo) prevention in the region, we can strengthen early intervention and long-term support systems. The Fracture Liaison Service (FLS) is a key framework within this approach, ensuring seamless coordination among healthcare providers to prevent secondary fractures and improve patient outcome. This leads to an extension of healthy life expectancy.

## 5. FFN-J13 Nagoya, Japan

Do Challenge!  
The 13th Annual Meeting of FFN-J in Nagoya

- February 27-28, 2026
- Conference venue: Wink Aichi
- Theme: SDGs by extending healthy life expectancy
  - True FLS Team Building Leads to Zero Fragile Fractures

Please come to Nagoya.