



Assessing The Quality Of Consultation Response Between D.D.S And M.D For Preventing Medication Related Osteonecrosis Of The Jaw (MRONJ)

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INTRODUCTION

Bone modifying agent (BMA) is a widely used drug that can reduce the risk of skeletal-related events (SRE) in patients with osteoporosis or cancer bone metastases. MRONJ is a rare diseases that can occur in patients receiving these BMA drugs, mostly exposed mandibular bones in the maxillofacial region. The difference in medical and dental views on MRONJ poses major challenges in planning invasive pre-dental procedures for patients receiving BMA. Therefore, the cases of BMA administered patients who visited the Department of Advanced General Dentistry at Yonsei University Dental Hospital in the last two years and who had a history of referral to a hospital/clinic that performed BMA treatment was analyzed.

METHODS

SCRAP 2.0
(a clinical research & analysis,
Yonsei University
Medical center)

- **0 point** : each item if the corresponding content not mentioned at all
 - **1 point** : each item if the corresponding content was completely included
- The scores of the 5 items were summed to evaluate the medical response. A perfect score is 5-point scale.

- Period : 2020, May ~ 2022, June
- Who received BMA and visited the dept. of Advanced General Dentistry

- 129 patients
- Analyzed for their dental consultation and medical reply before their Invasive dental procedure

- ❖ 5 items of dental consultation to medical
 - Dental operability
 - BMA medication name & duration
 - Availability & duration of drug holidays
 - Whether & when to resume medication
 - T - score

RESULTS

Consult department

129 patients were referred to a total of 16 medical departments. Among them, the number of patients with endocrinology was the highest with 65, followed by oncology with 17 and hematology with the same number of patients with 8 at other hospitals. (Table 1)

Department	Number of patient (%)	Department	Number of patient (%)
Endocrinology	65 (50%)	Geriatrics	2 (1.5%)
Medical Oncology	17 (13%)	Rheumatology	2 (1.5%)
Hematology	8 (6%)	Urology	2 (1.5%)
Other Hospital/Clinic	8 (6%)	Pediatric Cardiology	1 (0.8%)
Orthopedic Surgery	7 (5%)	Nephrology	1 (0.8%)
Family Medicine	5 (4%)	Cardiology	1 (0.8%)
Neurosurgery	5 (4%)	Transplantation Surgery	1 (0.8%)
Rehabilitation Medicine	3 (2%)	Clinical Genetics	1 (0.8%)

Table 1. Number of patients by medical departments

Among the average summed medical reply assessment score for each department, dept. of Nephrology's was the highest score of 4 ± 0 out of 5, followed by Urology's with 3.5 ± 0.7 , and Orthopedic Surgery with 3.28 ± 1.25 . (Figure 1)

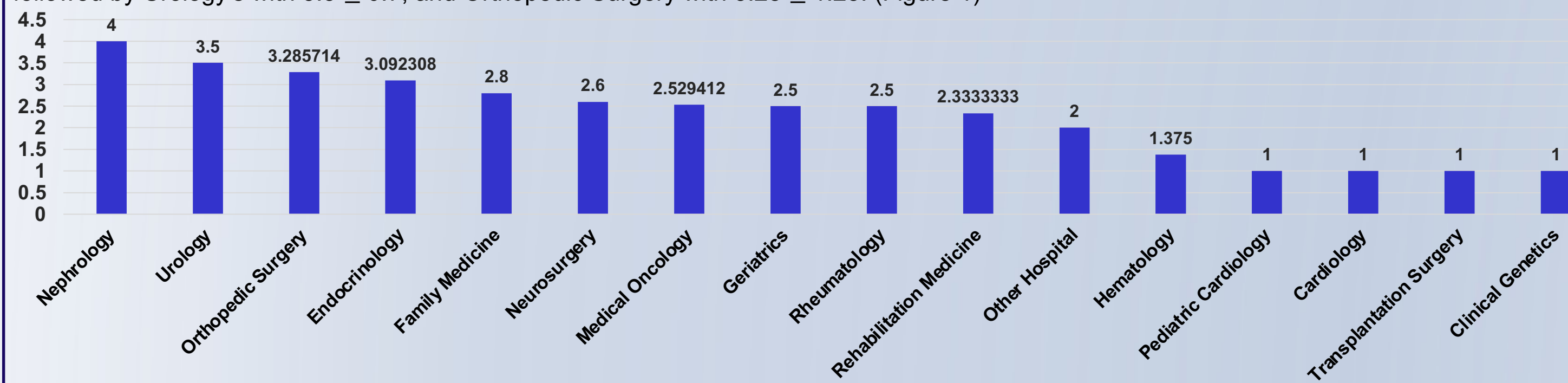


Figure 1. Average of summed medical reply assessment score by medical department

Medical answer evaluation

Among the reply assessment scores out of a total of 5 points, the average of total medical reply assessment score was 2.73 ± 1.17 points. Among the total of 129 medical responses, only 1 patient received a perfect score of 5, 41 patients received 4 points, 37 patients received 3 points, 23 patients received 2 points, 26 patients received 1 points. There was even 1 patient who received 0 points. (Figure 2)

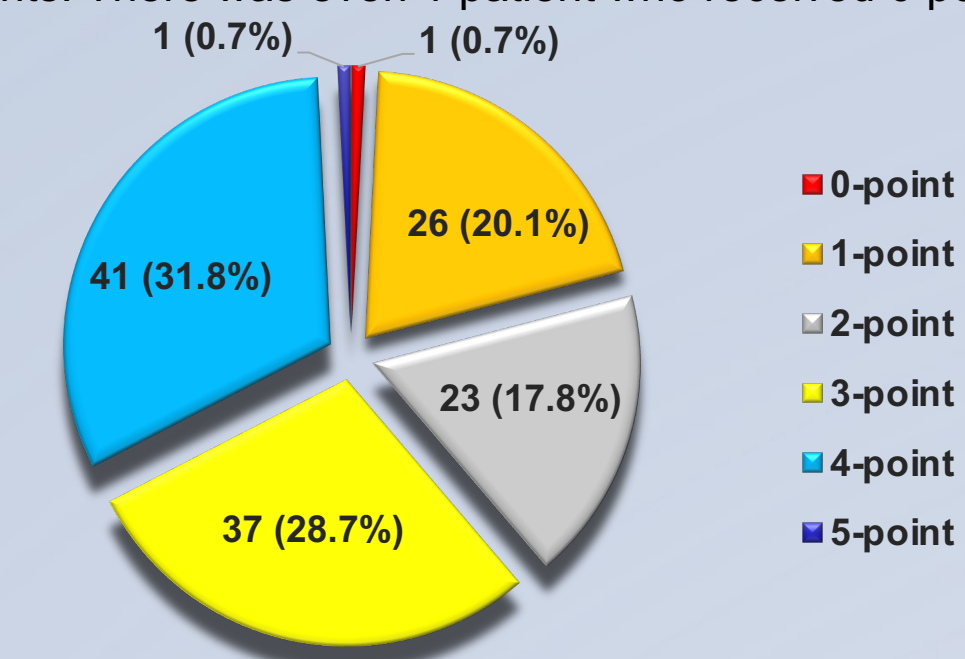
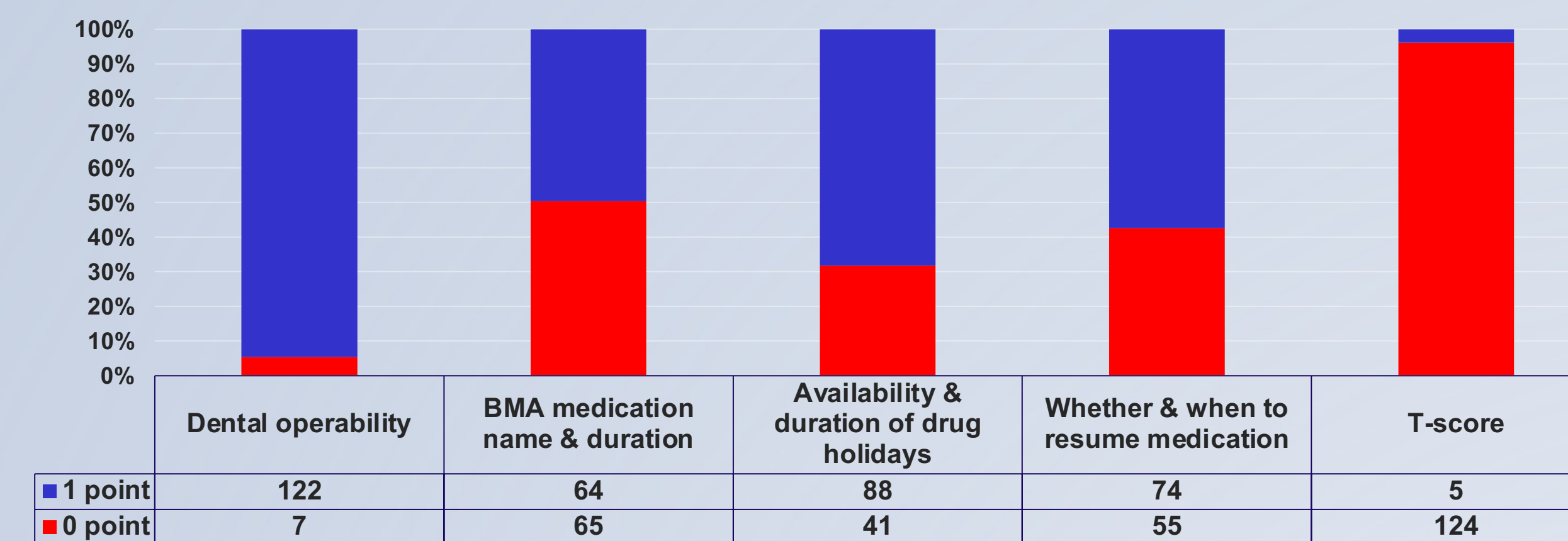


Figure 2. Number of patients by sum of medical reply assessment

The most missing item was the T-score with 124, followed by BMA medication name & duration with 65 and whether & when to resume medication, with 55 missing. (Figure 3)



- 1 point : the corresponding content was completely included
- 0 point : the corresponding content not mentioned at all

Figure 3. Percentage of assessment scores by item in medical replies

DISCUSSION

- The department with the most consultations was Endocrinology (50.4%). This is thought to be because Endocrinology deals with osteoporosis, a representative disease that considers BMA administration. The reason why there were many consultations in Medical Oncology and Hematology after Endocrinology is that BMA (ex. Zometa inj, Xgeva inj.) is also used when bone metastasis occurs in cancer.
- The average score for summed medical reply assessment score was 2.73 ± 1.17 , which is not closed to a perfect 5-point scale. The number of patients who received a score of 4 or higher was 42, which is less than 50% of the 129 patients (32%). This suggests that medical departments do not provide sufficient information in communication through consultation response.
- The number of replies without mentioning the BMA medication name and duration is 65 out of 129 patients, more than 50%. This makes it unclear even if dental hospital itself determines availability of treatment and establishes a treatment plan when there is a lack of information provided by the medical response.
- Among the medical reply assessment items, the most frequently omitted item was T-Score, with 124 cases. There is a possibility that the T-score was not considered important when performing dental treatment related to BMA, so it was omitted when replying to the consultation. However, when the risk of fracture is high when BMA medications are discontinued or replaced based on the T-score, dental treatment may be delayed after performing only pain control, so it is an important value that dentists should know.