



# QUALITY IMPROVEMENT IN DENTAL AND MEDICAL KNOWLEDGE, RESEARCH, SKILLS AND ETHICS FACING GLOBAL CHALLENGES

Edited by

Armelia Sari Widyarman, Muhammad Ihsan Rizal,  
Moehammad Orliando Roeslan & Carolina Damayanti Marpaung



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*Universitas Trisakti, Indonesia*



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## Table of Contents

|                          |      |
|--------------------------|------|
| <i>Preface</i>           | xiii |
| <i>Acknowledgements</i>  | xv   |
| <i>Committee Members</i> | xvii |

### *Behavioral, epidemiologic and health services*

|   |   |
|---|---|
| Characteristics of knowledge and attitude of Indonesian professional healthcare students toward Basic Life Support (BLS) courses<br><i>I. Gunardi, A. Subrata, A.J. Sidharta, L.H. Andayani, W. Poedjiastoeti &amp; S. Suebnukarn</i> | 3 |
|---|---|

|   |   |
|---|---|
| Bibliometric analysis of <i>imperata cylindrica</i> papers in Scopus database (2012–2021)<br><i>M.O. Roeslan, S. Wulansari &amp; P. Monthanapisut</i> | 9 |
|---|---|

|   |    |
|---|----|
| Development and validation of Indonesian version of OHIP-49 questionnaire using Rasch model<br><i>F.K. Hartanto, I. Gunardi, A. Kurniawan, A.J. Sidharta &amp; W.M.N. Ghani</i> | 17 |
|---|----|

|   |    |
|---|----|
| Knowledge regarding dental and oral health among pregnant women (study at Palmerah Community Health Center, West Jakarta)<br><i>P.A. Salsabila, L.H. Andayani &amp; A.G. Soulissa</i> | 24 |
|---|----|

|   |    |
|---|----|
| The xerostomia's effect on methadone therapy program patients' oral-health-related quality of life<br><i>T.T. Theresia, A.N. Fitri &amp; W. Sudhana</i> | 31 |
|---|----|

|  |    |
|--|----|
| The differences in work strategy and work fatigue between female and male dentists during the COVID-19 pandemic in Indonesia<br><i>D. Ranggaini, W. Anggraini, A.P. Ariyani, I. Sulistyowati &amp; M.F.C. Musa</i> | 42 |
|--|----|

|  |    |
|--|----|
| Dental students' perceptions and behaviors concerning oral hygiene and eating habits during the COVID-19 pandemic in Indonesia<br><i>A. Asia, L. Astuti, T.E. Astoeti, A.S. Widyarman &amp; W. Sudhana</i> | 49 |
|--|----|

|   |    |
|---|----|
| Analyzing teledentistry consultation during the pandemic Covid-19: A challenge of images in online consultation<br><i>M. Chandra &amp; R. Tjandrawinata</i> | 56 |
|---|----|

### *Conservative dentistry*

|  |    |
|--|----|
| Mandibular first molar with radix entomolaris: An endodontic case report<br><i>F. Farasdhita, W. Widyastuti &amp; E. Fibryanto</i> | 67 |
|--|----|

|   |    |
|---|----|
| Walking bleach technique on endodontically treated caninus with tetracycline discoloration<br><i>J.D. Susanto, A.P. Dwisaptarini &amp; S. Wulansari</i> | 73 |
|---|----|

|   |     |
|---|-----|
| Successful management of primary periodontal lesion with secondary endodontic involvement: A case report<br><i>F. Katrini, W. Widyastuti &amp; Aryadi</i>   | 77  |
| Non-surgical treatment for extensive perapical lesion: A case report<br><i>M.P. Darmawanti, A.P. Dwisaptarini &amp; D. Ratnasari</i>  | 84  |
| Monolithic zirconia endocrown: Indirect restoration for endodontically treated teeth<br><i>W. Wulandari, T. Suwartini &amp; E. Fibryanto</i>  | 90  |
| Effect of air-abrasive particle and universal bonding to shear bond strength of zirconia<br><i>F. Witoko, M.F. Amin, D. Ratnasari &amp; R. Tjandrawinata</i>  | 95  |
| Composite as a post-obturation restorative material on a non-vital tooth with endodontically treatment: A case report<br><i>R. Landy, W. Widyastuti &amp; S. Wulansari</i>  | 101 |
| Caries detection effectiveness of two techniques assessed using FACE method<br><i>Y. Winardi &amp; A.P. Dwisaptarini</i>  | 112 |
| <i>Pluchea indica</i> less leaves extract as a root canal irrigant against <i>Enterococcus faecalis</i> Colonies: <i>Ex vivo</i> study<br><i>E. Fibryanto, A. Tio, J.A. Gunawan, A. Hidayat &amp; N.Z.M. Noh</i>                        | 116 |
| Differences in resin polishing technique of nanofiller and nanohybrid composites<br><i>E.A.W. Yanti, A.P. Dwisaptarini, Elline &amp; M.S. Jamil</i>   | 124 |
| Differences in the effect of two Nickel Titanium rotary files preparation toward the changes on root canal curvature<br><i>A. Darkim, W. Widyastuti, S. Wulansari &amp; E.A. Budiyaniti</i>   | 129 |
| Effect of high refractive index composite resin thickness on CIELAB value<br><i>A.P. Dwisaptarini, D. Ratnasari, I. Hadiutomo, R. Tjandrawinata &amp; R. Trushkowsky</i>  | 136 |
| Single-visit retreatment in underfilled root canal of mandible second premolar: A case report<br><i>G. Jesslyn, B.O. Iskandar &amp; T. Suwartini</i>  | 141 |
| Antibiofilm effect of avocado ( <i>Persea Americana</i> ) seed ethanol extract on <i>Streptococcus mutans</i> and <i>Enterococcus faecalis</i> ( <i>ex vivo</i> )<br><i>S. Wulansari, A.S. Widyanman, R.U. Nadhifa &amp; M.J. Fatya</i> | 146 |
| Three-dimensional obturation in maxillary first molar with MB2: A case report<br><i>A. Sutanto, E. Fibryanto &amp; A.E. Prahasti</i>  | 154 |
| Semi-direct composite overlay restoration as an alternative restoration for endodontically treated tooth: A case report<br><i>N. Brians, J.A. Gunawan, A.E. Prahasti, E. Istanto &amp; S.M. Khazin</i>                                  | 160 |
| Comprehensive treatment of immature necrotic permanent teeth: A case report<br><i>A.E. Prahasti, E. Fibryanto, E. Elline &amp; W. Widyastuti</i>  | 166 |
| Diastemas management using direct composite resin restoration: The digital smile design approach<br><i>E. Elline, D. Ratnasari, E. Fibryanto, A.E. Prahasti &amp; R. Iffendi</i>  | 173 |

|   |     |
|---|-----|
| Removal of broken file using ultrasonics at one-third apical second molar distal: A case report<br><i>Y. Sutjiono, B.O. Iskandar, A.E. Prahasti, A. Subrata &amp; S.M. Khazin</i>           | 178 |
| <i>Apis mellifera</i> honey and miswak ( <i>Salvadora persica</i> ) effect on tooth color changes<br><i>N.D. Iskandar, D. Ratnasari &amp; R. Stefani</i>                                    | 182 |
| Fiber reinforced composite in endodontically treated tooth: A case report<br><i>J. Setiawan, T. Ariwibowo &amp; M.F. Amin</i>   | 188 |
| The management of post-endodontic treatment using fiber-reinforced composite: A case report<br><i>R. Lambertus, T. Suwartini, E. Elline, A.E. Prahasti &amp; S.A. Asman</i>                 | 195 |
| Management of crown-root fracture with pulp exposure: A case report<br><i>Y. Susanti, B. Iskandar &amp; T. Ariwibowo</i>  | 201 |
| Management of molar with C-shape root canal configuration: Case reports<br><i>F. Antonius, T. Suwartini &amp; J.A. Gunawan</i>  | 207 |
| Endodontic treatment on young age molar with pulp polyp and diffuse calcification finding in a radiograph<br><i>P. Andriani, A.P. Dwisaptarini &amp; J.A. Gunawan</i>                       | 214 |
| Cyclic fatigue of three heat-treated NiTi rotary instruments after multiple autoclave sterilization: An <i>in-vitro</i> study<br><i>S.A. Putri, W. Widyastuti, A. Aryadi &amp; R. Amtha</i> | 221 |
| Endodontic management of S-shaped root canal on mandibular first molar: A case report<br><i>N. Tanuri, M.F. Amin &amp; S. Wulansari</i>   | 226 |
| Root canal treatment on the complex case using ultrasonics: A case report<br><i>L.H. Wibowo, E. Elline, E. Fibryanto, A.E. Prahasti &amp; D. Qurratuani</i>                                 | 231 |
| Management of iatrogenic problems during root canal treatment<br><i>Y.N. Argosurio, M.F. Amin &amp; E. Elline</i>   | 236 |
| Non-surgical endodontic retreatment of maxillary first premolar with direct composite restoration: A case report<br><i>A.R. Pradhista, B.O. Iskandar &amp; Aryadi</i>                       | 243 |
| <br><i>Dental materials</i>   |     |
| The effect of soft drinks containing citric and phosphoric acid toward enamel hardness<br><i>A. Aryadi, D. Pratiwi &amp; C. Cindy</i>   | 249 |
| Microhardness of a flowable bulk-fill resin composite in immediate and 24-hour storage<br><i>R. Tjandrawinata, D. Pratiwi, F.L. Kurniawan &amp; A. Cahyanto</i>                             | 255 |
| The effect of halogen mouthwash on the stretch distance of the synthetic elastomeric chain<br><i>M. Wijaya, R. Tjandrawinata &amp; A. Cahyanto</i>  | 261 |

|  |     |
|--|-----|
| Synthesis and characterization of $\beta$ -tricalcium phosphate from green mussel shells with sintering temperature variation<br><i>M.R. Kresnatri, E. Eddy, H.A. Santoso, D. Pratiwi, D.L. Margaretta &amp; T. Suwandi</i>  | 267 |
| The effect of immersion in 75% concentration tomato juice on the mechanical properties of nanohybrid composites resin<br><i>J. Kamad, D. Lilianny &amp; E. Eddy</i>  | 277 |
| Evaluation of setting time of glass ionomer cement mixed with ethanolic extracts of propolis<br><i>T.S. Putri, D. Pratiwi &amp; A.E.Z. Hasan</i>   | 285 |
| The knowledge level of dental students on adequate composite resin polymerization in the COVID-19 pandemic era<br><i>O. Octarina &amp; L.A.L. Ongkaruna</i>  | 290 |
| <br><i>Dento-maxillofacial radiology</i>   |     |
| The role of dental record data in the mass disaster identification process: A case report of the Sriwijaya SJ-182 airplane crash<br><i>V. Utama, R. Tanjung, A. Quendangen, A. Fauzi, A. Widagdo, M.S. Haris &amp; A.S. Hartini</i>  | 299 |
| Management of postmortem dental radiography procedure in mass disaster victim identification<br><i>R. Tanjung &amp; I. Farizka</i>   | 305 |
| Radiomorphometric analysis of gonion angle and upper ramus breadth as a parameter for gender determination<br><i>I. Farizka &amp; R. Tanjung</i>   | 312 |
| <br><i>Medical sciences and technology</i>   |     |
| Artificial intelligence application in dentistry: Fluid behaviour of EDDY tips<br><i>H.H. Peeters, E.T. Judith, F.Y. Silitonga &amp; L.R. Zuhul</i>  | 321 |
| <i>MTHFR</i> C677T, A1298C*, and its interaction in nonsyndromic orofacial cleft phenotypes among Indonesian<br><i>S.L. Nasroen &amp; A.M. Maskoen</i>   | 328 |
| <br><i>Oral and maxillofacial surgery</i>  |     |
| The effectiveness of giving forest honey ( <i>Apis Dorsata</i> ) and livestock honey ( <i>Apis Cerana</i> and <i>Trigona</i> ) on the number of fibroblast in wound healing after tooth extraction ( <i>in vivo</i> research in Wistar rats)<br><i>T.A. Arbi, I.N. Aziza &amp; T. Hidayatullah</i> | 341 |
| Reconstruction of large post-enucleation mandibular defect with buccal fat pad<br><i>N.A. Anggayanti, A.D. Sastrawan &amp; O. Shuka</i>  | 348 |
| Challenge and management of dental implant during COVID-19 pandemic: Bone formation on second stage implant surgery<br><i>D. Pratiwi, H. Pudjowibowo &amp; F. Sandra</i>   | 354 |

|  |     |
|--|-----|
| The evaluation of maxillary sinus for implant planning through CBCT<br><i>A.P.S. Palupi, W. Poedjiastoeti, M.N.P. Lubis, I. Farizka, B. Claresta &amp; J. Dipankara</i>  | 360 |
| The jawbone quantity assessment of dental implant sites<br><i>W. Poedjiastoeti, M.N.P. Lubis, Y. Ariesanti, I. Farizka, J. Dipankara &amp; S. In glam</i>  | 366 |
| Comparative assessment of the distance between the maxillary sinus floor and maxillary alveolar ridge in dentulous and edentulous using panoramic radiography<br><i>A.S.D. Audrey, W. Poedjiastoeti, M.N.P. Lubis, J. Dipankara &amp; S. In glam</i> | 372 |
| Comparison between impacted mandibular third molar against mandibular angle and canal<br><i>N. Marlina, W. Poedjiastoeti, I. Farizka, J. Dipankara &amp; S. In glam</i>  | 379 |
| <br><i>Oral biology</i>  |     |
| Saliva as a diagnostic tool for COVID-19: Bibliometric analysis<br><i>M.I. Rizal, R.A. Hayuningtyas, F. Sandra, M.S. Djamil &amp; B.O. Roeslan</i>   | 387 |
| Cytotoxicity activity of <i>Allium sativum</i> extracts against HSC-3 cells<br><i>I.J. Pardenas &amp; M.O. Roeslan</i>   | 393 |
| Effectiveness of probiotic lozenges in reducing salivary microorganism growth in patients with fixed orthodontic appliances: A pilot study<br><i>A.S. Wid yarman, S. Vilita, G.C. Limarta, S.M. Sonia &amp; F. Theodorea</i>                         | 399 |
| Potential anticancer properties of <i>Apium graveolens</i> Linn. against oral cancer<br><i>T. Hartono, F. Sandra, R.A. Hayuningtyas, S. Jauhari &amp; J. Sudiono</i>   | 407 |
| Antibacterial activity of bromelain enzyme from pineapple knob ( <i>Ananas comosus</i> ) against <i>Streptococcus mutans</i><br><i>D. Liliany, E. Eddy &amp; A.S. Wid yarman</i>   | 414 |
| <i>Elephantopus scaber</i> Linn.: Potential candidate against oral squamous cell carcinoma<br><i>T. Pang, F. Sandra, R.A. Hayuningtyas &amp; M.I. Rizal</i>  | 424 |
| Effectiveness of gargling with 100% coconut oil to prevent plaque accumulation and gingival bleeding<br><i>A.G. Soulissa, M. Juslily, M. Juliawati, S. Lestari, N.P. Ramli, Albert &amp; A. Ismail</i>   | 429 |
| Hydroxamate HDAC inhibitors potency in mediating dentine regeneration: A review<br><i>I. Sulistyowati, W. Anggraini, A.P. Ariyani &amp; R.B. Khalid</i>  | 435 |
| Various compounds that are used as oxidative stress inducers on fibroblast cell<br><i>Komariah, P. Trisfilha &amp; R. Wahyudi</i>  | 443 |
| Nano encapsulation of lemongrass leaves extract ( <i>Cymbopogon citratus</i> DC) on fibroblast viability with oxidative stress<br><i>N. Ericka, K. Komariah, R. Wahyudi &amp; T. Trisfilha</i>   | 450 |



|   |     |
|---|-----|
| Arumanis mango leaves ( <i>Mangifera indica</i> L.) extract efficacy on <i>Porphyromonas gingivalis</i> biofilm <i>in-vitro</i><br><i>S. Soesanto, Yasnill, A.S. Widyarman &amp; B. Kusnoto</i> | 461 |
| A systematic review to evaluate the role of antibiotics in third molar extraction<br><i>R.A. Hayuningtyas, S. Soesanto, P. Natassya &amp; S.B. Gutierrez</i>                                    | 468 |
| Efficacy of epigallocatechin gallate gel on VEGF and MMP-9 expression on ulcerations<br><i>L.A. Porjo, R. Amtha &amp; M.O. Roeslan</i>  | 472 |

### *Oral medicine and pathology*

|  |     |
|--|-----|
| Salivary interleukin (IL)-6 in elderly people with stomatitis aphthous and gingivitis associated with the occurrence of cognitive impairment<br><i>D. Priandini, A. Asia, A.G. Soulissa, I.G.A. Ratih, T.B.W. Rahardjo &amp; E. Hogervorst</i> | 481 |
| The uses of palm fruit ( <i>Borassus flabellifer</i> L.) in dentistry<br><i>J. Sudiono &amp; T.G.R. Susanto</i>  | 489 |
| Endodontic irrigation solution administration induces oral mucosal deformity: A case report<br><i>R. Amtha, D. Agustini, N. Nadiah, F.K. Hartanto &amp; R.B. Zain</i>  | 496 |
| Profile of oral mucosa changes and perception of e-cigarettes smoker<br><i>R. Amtha, A.P. Rahayu, I. Gunardi, N. Nadiah &amp; W.M.N. Ghani</i>   | 502 |
| Potency of <i>Solanum betaceum</i> Cav. Peel skin ethanol extract towards TNF- $\alpha$ blood level (Study in vivo on inflammatory rats model)<br><i>J. Sudiono &amp; M.T. Suyata</i>  | 508 |
| Stomatitis venenata due to nickel as inlay materials in a 24-year-old woman: A case report<br><i>F. Mailiza, A. Bakar &amp; U. Nisa</i>  | 518 |
| Treatment challenge of oral lichenoid lesion associated with glass ionomer cement restoration: A case report<br><i>F.K. Hartanto, I. Gunardi, M.L. Raiyon, N. Nadiah &amp; H. Hussaini</i>   | 526 |
| Validity and reliability of the Indonesian version of COMDQ-26: A pilot study<br><i>J.V. Winarto, I. Gunardi, C.D. Marpaung, R. Amtha &amp; W.M.N. Ghani</i>   | 531 |

### *Orthodontics*

|  |     |
|--|-----|
| Interceptive orthodontic treatment needs and its relating demographic factors in Jakarta and Kepulauan Seribu<br><i>Y. Yusra, J. Kusnoto, H. Wijaya, T.E. Astoeti &amp; B. Kusnoto</i> | 539 |
| Diastema closure and midline shifting treatment with standard technique (Case report)<br><i>H.F. Lubis &amp; J.X. Ongko</i>  | 543 |
| Intrusion and uprighting using TADs in mutilated four first permanent molar case<br><i>H.F. Lubis &amp; F. Rhiyanthy</i>   | 548 |

|  |     |
|--|-----|
| Moringa and papaya leaf inhibit <i>Streptococcus mutans</i> and <i>Candida albicans</i><br><i>H.F. Lubis &amp; M.K. Hutapea</i>  | 554 |
| Intruding upper first molar using double L-Loop in an adult patient:<br>A retreatment case<br><i>H.F. Lubis &amp; Joselin</i>  | 561 |
| Profile changes in Class III malocclusion using protraction facemask in<br>Indonesian patients (Cephalometric study)<br><i>H. Halim &amp; I.A. Halim</i>   | 565 |
| <i>Pediatric dentistry</i>   |     |
| Oral microbiome dysbiosis in early childhood caries (Literature review)<br><i>T. Putriany &amp; H. Sutadi</i>  | 575 |
| <i>Periodontology</i>  |     |
| Permanent splint using removable partial denture framework on reduced<br>periodontium: A case report<br><i>V. Hartono, F.M. Tadjoedin, A. Widaryono &amp; T.A. Mahendra</i>                            | 587 |
| The effect of electric smoking on the severity of chronic periodontitis<br><i>A.P. Fathinah &amp; M. Louisa</i>  | 594 |
| Periodontitis effects toward the extent of COVID-19 severity (Scoping review)<br><i>S.A. Arthur &amp; M. Louisa</i>  | 603 |
| Scaffold-based nano-hydroxyapatite for periodontal regenerative therapy<br><i>N.A. Harsas, Y. Soeroso, N. Natalina, E.W. Bachtiar, L.R. Amir, S. Sunarso,<br/>R. Mauludin &amp; C. Sukotjo</i>         | 614 |
| Defect management using hydroxyapatite and platelet-rich fibrin in advanced<br>periodontitis<br><i>V. Wibianty, V. Paramitha &amp; N.A. Harsas</i>   | 621 |
| The relationship between age with caries status and periodontal treatment needs<br>on visually impaired individuals<br><i>P. Wulandari, M.A.L. Tarigan, K. Nainggolan, M.F. Amin &amp; J. Maharani</i> | 630 |
| Effects of COVID-19 on periodontitis (Scoping review)<br><i>A.R. Somawihardja &amp; M. Louisa</i>  | 638 |
| Concentrated growth factor for infrabony defect in periodontitis treatment:<br>A review<br><i>F.C. Maitimu &amp; T. Suwandi</i>  | 643 |
| Subcutaneous emphysema after dental stain removal with airflow: A case report<br>and anatomical review<br><i>A. Albert, W. Anggraini &amp; W. Lestari</i>  | 651 |
| Bonding agents for dentine hypersensitivity treatment: A review<br><i>O.N. Komala, L. Astuti &amp; F.C. Maitimu</i>  | 657 |
| Advantages and disadvantages of 2017 new classification of periodontitis<br>(Scoping review)<br><i>R. Anggara &amp; K. Yosvara</i>   | 668 |

|   |     |
|---|-----|
| Comparison of periodontal disease severity in COVID-19 survivors and non-COVID-19 individuals<br><i>M. Louisa, R.A. Putranto, O.N. Komala &amp; W. Anggraini</i>              | 677 |
| Aerosol spread simulation during ultrasonic scaling and strategies to reduce aerosol contamination<br><i>M. Sundjojo, V. Nursolihati &amp; T. Suwandi</i>                     | 685 |
| The effect of pineapple ( <i>Ananas comosus</i> L.) juice on biofilm density of streptococcus sanguinis ATCC 10556<br><i>T. Suwandi &amp; Y.V. Thionadewi</i>                 | 689 |
| <br><i>Prosthodontics</i>   |     |
| Prevalence and risk indicators of bruxism in Indonesian children<br><i>C. Marpaung, I. Hanin, A. Fitriyanur &amp; M.V. Lopez</i>  | 697 |
| Validity and reliability of temporomandibular disorders screening questionnaire for Indonesian children and adolescents<br><i>C. Marpaung, N.L.W.P. Dewi &amp; M.V. Lopez</i> | 704 |
| Effect of submersion of alginate molds in povidone iodine concentration of 0,47 % solution toward dimensional change<br><i>N. Adrian &amp; I.G.P. Panjaitan</i>               | 710 |
| Effect of pure basil leaf extract on surface roughness of heat cured acrylic resin<br><i>I.G.P. Panjaitan &amp; N. Adrian</i>   | 715 |
| Prosthetic rehabilitation after mandibular reconstruction in young adult patient with ameloblastoma history<br><i>I. Hanin &amp; I. Setiabudi</i>                             | 720 |
| Treatment of tooth supported magnet retained maxillary complete overdenture: Case report<br><i>I.G.A.R.U Mayun</i>  | 725 |
| Complete denture management with torus palatinus: A case report<br><i>E.S.I. Sari, I.K. Julianton &amp; G.G. Gunawan</i>  | 730 |
| Management of rehabilitation for partial tooth loss with immediate removable dentures in the era of the COVID-19 pandemic: A case report<br><i>A. Wirahadikusumah</i>         | 734 |
| Management of anterior mandibular lithium disilicate crown fracture<br><i>J. Handojo &amp; L.A. Halim</i>   | 742 |
| Author index  | 747 |

## Preface

Faculty of Dentistry Universitas Trisakti (Usakti) presents FORIL XIII 2022 Scientific Forum Usakti conjunction with International Conference on Technology of Dental and Medical Sciences (ICTDMS) on December 8th–10th 2022. The theme of the conference is “Quality Improvement in Dental and Medical Knowledge, Research, Skills and Ethics Facing Global Challenges”.

The triennial conference has served as a meeting place for technical and clinical studies on health, ethical, and social issues in field medical and dentistry. It is organized around 12 major themes, including behavioral, epidemiologic, and health services, conservative dentistry, dental materials, dento-maxillofacial radiology, medical sciences and technology, oral and maxillofacial surgery, oral biology, oral medicine and pathology, orthodontics, pediatrics dentistry, periodontology, and prosthodontics.

The most recent findings in fundamental and clinical sciences related to medical and dental research will be presented in the conference that will be published as part of the conference proceeding. This proceeding will be useful for keeping dental and medical professionals up to date on the latest scientific developments.

Dr. Aryadi Subrata  
Chairman FORIL XIII conjunction with ICTDMS

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FAKULTAS KEDOKTERAN GIGI  
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# FORIL XIII 2022

FKG USAKTI SCIENTIFIC FORUM CONJUNCTION WITH INTERNATIONAL  
CONFERENCE IN DENTAL, MEDICAL SCIENCES AND TECHNOLOGY

"Quality Improvement in Dental Knowledge, Research,  
Skills and Ethics Facing Global Challenges"

8 - 10 December 2022 - JIEXPO Convention Centre and Theatre



# FOREWORD



**drg. Aryadi, Sp.KG(K)**  
Chairperson, FORIL XIII 2022 Organizing Committee



**Prof. Dr. drg. Tri Erri Astoeti, M.Kes**  
Dean of Faculty of Dentistry, Universitas Trisakti

It is a great pleasure to welcome all of you, dentists, students, sponsors, and exhibitors, to this year's FORIL XIII (Forum Ilmiah) 2022. I am delighted to announce that FORIL XIII 2022 will be held at **Jl EXPO Convention Centre and Theatre** on December 8th to 10th, 2022.

In the era of globalization, dentists have been expected to continuously pursue and update more knowledge, refine their skills, and learn advanced technology to be able to compete with dentists from all around the world and provide the best treatment for their patients. As a way to do that, our Faculty of Dentistry, Universitas Trisakti will hold FORIL, a scientific seminar with the theme "Quality Improvement in Dental Knowledge, Research, Skills, and Ethics Facing Global Challenges".

Faculty of Dentistry, Universitas Trisakti has held FORIL for many years with forefront topics on dental research and clinical applications brought by our established and professional experts from our faculty. Our organizing committee has prepared this event attentively with preeminent scientific programs, enthralling social events, and attractive dental exhibition. This event could also be the perfect place for your blissfull reunion with your colleagues. It would be an honor and privilege to have each and every one of you to participate and join us in our Faculty's acclaimed program.

**drg. Aryadi, Sp. KG (K)**  
**Chairperson, FORIL XIII 2022 Organizing Committee**

Greetings from Jakarta,

It gives me tremendous pleasure to welcome all colleagues, students, sponsors and exhibitors to our Scientific Forum the "XIIIth FORUM ILMIAH" (FORIL 2022) to be held from 8 to 10 December 2022 at **Jakarta International Expo Convention Centre and Theatre, Kemayoran, North Jakarta**. I feel extremely proud that the XIIIth FORIL 2022 is going beyond as a part of Continuing Dental Professional Development Program.

The theme of the XIIIth FORIL 2022 is "Quality Improvement in Dental Knowledge, Research, Skills and Ethics Facing Global Challenges". This theme is to anticipate the challenges of globalization era in the field of dental health care, so that the quality of dental health professionals including dentists in Indonesia can be improved through the updating researches, clinical practices, sciences professionalism, skills and technology without leaving the ethical aspect.

The XIIIth meetings are expected to offer scientific programs, exhibition, and dentist reunion. These sessions will enrich your knowledge on the latest developments in oral and dental disciplines.

On behalf of Faculty of Dentistry Universitas Trisakti, I would like to invite everyone to be a part of this important event. I look forward to welcoming you to the XIIIth FORIL 2022.

**Best wishes,**  
**Prof Dr. Drg. Tri Erri Astoeti, MKes.**  
**Dean of Faculty of Dentistry, Universitas Trisakti**



Faculty of Dentistry Universitas Trisakti (USAKTI) presents International Conference in Dental, Medical Sciences and Technology (ICDMST) on December 8-10, 2022. With the main theme of "Quality Improvement in Dental and Medical Knowledge, Research, Skills and Ethics Facing Global Challenges", this triennial conference has served as a meeting place for researchers, practitioners, and academics to share their technical and clinical studies on health, ethical, and social issues in field medical and dentistry. The conference welcomes participants to present most recent findings in fundamental and clinical sciences related to medical and dental research under 12 major topics, including behavioral, epidemiologic, and health services, conservative dentistry, dental materials, dento-maxillofacial radiology, medical sciences and technology, oral and maxillofacial surgery, oral biology, oral medicine and pathology, orthodontics, pediatrics dentistry, periodontology, and prosthodontics. Selected papers will be published in a conference proceedings which will be useful for keeping dental and medical professionals up to date on the latest scientific developments.

# FORIL

# XIII

## AGENDA

**May 16, 2022**

First Call for Abstract

**August 30 2022**

Abstract Submission Deadline

**September 9 2022**

Announcement of Abstract Acceptance

**October 14 2022**

Full Paper Submission and Payment Deadline

**December 8 2022**

Conference Day 1

**December 9 2022**

Conference Day 2

**December 10 2022**

Conference Day 3

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FORIL XIII  
2022



FAKULTAS KEDOKTERAN GIGI  
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# ABSTRACT

SHORT LECTURE

## **RECONSTRUCTION OF LARGE POST- ENUCLEATION MANDIBULAR DEFECT WITH BUCCAL FAT PAD**

**ABS-090****Nyoman Ayu Anggayanti, Agus Dwi Sastrawan, Oyagi Shuka**

**Background:** The ideal intraoral reconstruction should mimic speech, mastication, articulation, and aesthetical function of previous soft and hard tissue. Buccal Fat Pad (BFP) is a vascularized graft with potent regenerative ability. However, reports in BFP application especially in mandibular defects are somewhat limited.

**Case Report:** A 47-year-old female patient came to Wangaya Regional Hospital, Bali, Indonesia with chief complaint of swelling on left lower jaw. Radiograph examination showed a large cystic lesion in posterior left mandible region.

**Case Management:** After extraction of affected teeth #36-38, overlying bone was removed, the cyst was enucleated and sent for biopsy. Necrotomy was performed, leaving a defect of 3.5 cm x 1.5 cm. Buccal extension of BFP was herniated via blunt dissection, placed into the post-enucleation defect, covered with flap, and sutured. The defect showed progressive and stable healing at one day, one week, and one-month post-reconstruction follow up.

**Discussion:** BFP has been increasingly used for intraoral reconstruction especially in oroantral communication and cleft palate cases. It has been reported to give successful result even in previously failed graft site. BFP has a low infection rate, is rich in vascularity, close to recipient site, has quick epithelization rate, and only needs minimal dissection to be harvested hence minimal morbidity at donor site. The main disadvantage of BFP is possible post-surgical contraction. **Conclusion:** BFP graft is a practical technique that could be applied clinically to achieve an ideal intraoral reconstruction, mimicking both aesthetic and functionality of antecedent removed tissues.

**Keywords:** Mandibular defect; Intra oral reconstruction; Buccal fat pad

## **INTERCEPTIVE ORTHODONTIC TREATMENT NEED AND ITS RELATING DEMOGRAPHIC FACTORS IN DKI JAKARTA AND KEPULAUAN SERIBU**

**ABS-091****Y Yusra, J Kusnoto, H Wijaya, T E Astoeti, B Kusnoto**

**Background:** Interceptive orthodontic is an orthodontic treatment procedure that aims to minimize the effect of malocclusion and decrease the need for a more complex malocclusion treatment, high cost of treatment, and eventually declining the need for corrective orthodontic treatment. DKI Jakarta and Kepulauan Seribu has 763.666 primary school aged children thus screening for the need of interceptive orthodontic treatment would be highly useful in identifying children that would benefit from getting interceptive orthodontic treatment. **Aim.** To investigate the need for interceptive orthodontic treatment and identifying its relating factors in 8-11 years old children in DKI Jakarta and Kepulauan Seribu. **Method.** This research is observational analytic research with cross sectional study design utilizing the Indeks Kebutuhan Perawatan Ortodonti Interseptif (IKPO-I). Each indicator is scored based on the subjects intra oral conditions then the data gathered was used to quantify the need for interceptive orthodontic treatment and its relating factors. **Result.** Based on 2020 subjects it is found that 18.96% of subjects does not need orthodontic treatment, 59.36% require interceptive orthodontic treatment, and 21.68% need corrective orthodontic treatment. There is a significant correlation between need for interceptive orthodontic treatment with parents' income ( $r = -0.07$ ;  $p = 0.02$ ). **Conclusion.** IKPO-I can be used as an interceptive orthodontic treatment screening instrument. More than half of the subjects require interceptive orthodontic treatment. Parents' income is the only demographic factor relate to the need for interceptive orthodontic treatment.

**Keywords:** Interceptive orthodontic, treatment need, IKPO-I, DKI Jakarta and Kepulauan Seribu

# PEPSODENT FORIL XIII AWARD

## WHAT IS PEPSODENT FORIL XIII AWARD?

Pepsodent Foril XIII Award is a prestigious competition organized by Foril Scientific Committee to honour the participants with outstanding research, case reports or literature reviews. We welcome everyone from different institutes and countries who wishes to participate in Pepsodent Foril XIII Award. The winner of Pepsodent Foril XIII Award will be granted prize money from our sponsor.

## CATEGORIES OF COMPETITION

Participants can choose to enter into one of the following categories in the competition during the online abstract submission:

### 1. Dentists Category:

Participants has acquired their dental degree, is a dental practitioner, or enrolled in a post-graduate or PhD program. The participant of this category can choose to submit abstract on one of the following criteria:

- a. Research
- b. Case Report
- c. Literature Review.

### 2. Student Category:

This category will be limited to only students who have completed their research as part of undergraduate dental programs.

## PRIZE FOR PEPSODENT FORIL XIII AWARD WINNERS

### 1. Dentist Categories

#### a. Research

The winner will receive Rp.12.000.000,-  
The first runner up will receive Rp.9.000.000,-  
The second runner up will receive Rp.7.000.000,-

#### c. Literature Review

The winner will receive Rp.9.000.000,-  
The first runner up will receive Rp.7.000.000,-  
The second runner up will receive Rp.5.000.000,-

#### b. Case Report

The winner will receive Rp.10.000.000,-  
The first runner up will receive Rp.8.000.000,-  
The second runner up will receive Rp.6.000.000,-

### 2. Student Categories

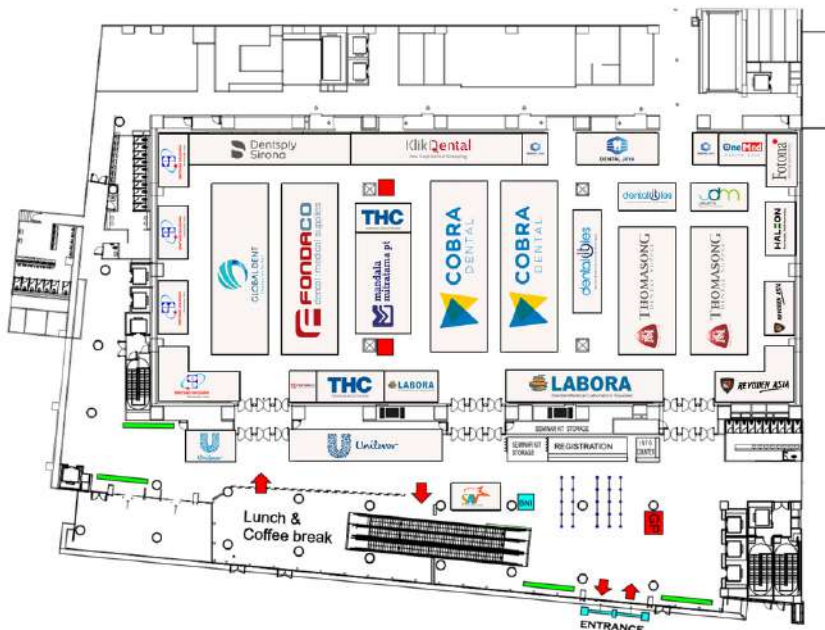
The winner will receive Rp.8.000.000,-  
The first runner up will receive Rp.6.000.000,-  
The second runner up will receive Rp.4.000.000,-

## HOW TO PARTICIPATE?

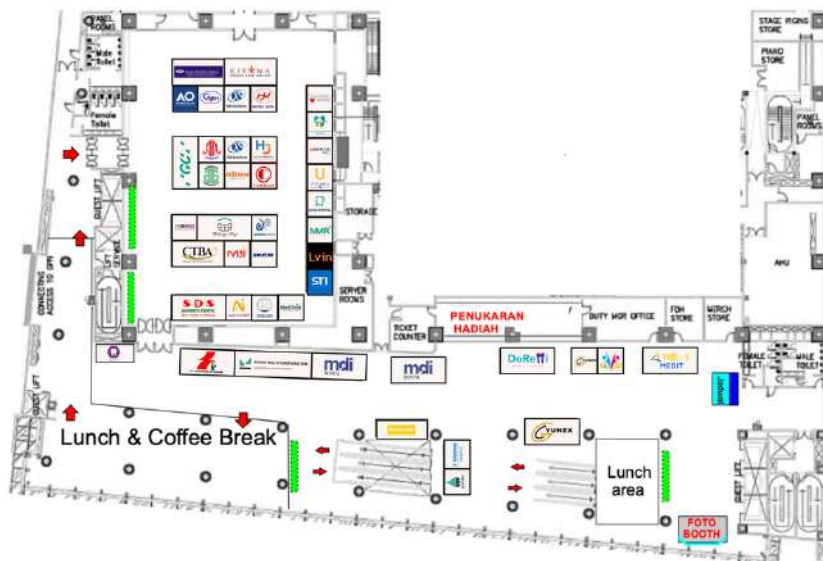
- Participants can choose to enter award competition during abstract submission. Choose the correct category (Student/Dentist).
- Once the abstract is accepted, participants are expected to complete the registration/publishing payment and submit full paper. It is strongly recommended for the participant to proofread the manuscript using manuscript editor (Enago, etc) before full paper submission.
- The judges will review the abstract and full paper based on the originality and writing methods of the research/case report/literature review.
- The award finalists will be announced to present their paper to a panel of judges at the venue (offline session).
- The judging session will be held during the Pre-Foril session at Faculty of Dentistry Universitas Trisakti, Jakarta.

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## A systematic review to evaluate the role of antibiotics in third molar extraction

R.A. Hayuningtyas, S. Soesto & P. Natassy  
Universitas Trisakti, Jakarta, Indonesia

S.B. Gutierrez  
University of the Philippines Open University, Manila, Philippines

**ABSTRACT:** Third molar extraction has become a frequent surgical practice for dentists. To minimize the postextraction infection, an antibiotics prescription is usually given. However, excessive antibiotic usage may also lead to several adverse reactions and bacterial resistance. The objective of this review is to understand the advantages and the risk of antibiotics prescription on third molar removal treatment. Systematic research was done on PubMed, SpringerLink, ScienceDirect, EBSCO, and Wiley using the search terms ("Odontectomy" OR "Third molar extraction") AND ("Antibiotics"). For this study, 92 articles were examined and only 7 were selected for this review. The Preferred Reporting Item for Systematic Review and Meta-Analyses (PRISMA) guidelines was used. Results showed that antibiotics such as clindamycin and penicillin reduce trismus, swelling, and pain after postoperative compared to placebo. Quality of life (QoL) is also slightly better in patients who were prescribed amoxicillin after surgery. Amoxicillin also reduces postoperative infections such as alveolar osteitis and dry socket. It can be concluded that antibiotics are still preferable to be given after the third molar extraction. Proper extraction methods and drug dosage must be fully understood by the operator to minimize infection and the drug's adverse effects.

### 1 INTRODUCTION

Third molar extraction is a common procedure in dental practice. The prevalence of third molar impaction is 24% throughout the globe (Carter & Worthington 2016). This procedure has several postoperative complications such as alveolitis, bleeding, infection, and nerve damage (Candotto et al. 2019). Dentists usually prescribe patients with preoperative prophylaxis antibiotics, although it showed no significant difference in preventing complications (Cho et al. 2017).

Antibiotics are used as antimicrobial agents for bacteria. In dentistry, prophylaxis is given to prevent infection or therapeutic, which is used to resolve the undergoing infection (Stein et al. 2018). It is usually given in cases of bleeding to prevent bacteremia. Furthermore, antibiotic prophylaxis is needed for patients with endocarditis, immunocompromised condition, organ failure, and pregnancy (Ramu & Padmanabhan 2012). Amoxicillin is the most prescribed by dentists (Ahmadi et al. 2021).

Over-prescription of antibiotics may lead to bacterial resistance such as *Clostridium difficile* (Thornhill et al. 2015). Therefore, antibiotics should be given in a narrow spectrum and used just for acute illness. Other researchers have stated that 96.6% of dentists prescribe antibiotics irrationally (Schmidt et al. 2021). Therefore, in 2015, World Health Organization (WHO) released a worldwide plan to resolve the antimicrobial resistance problems (Global Action Plan on Antimicrobial Resistance 2016). One of the suggestions is to prescribe



antibiotics according to the definitive diagnosis, while dentists usually prescribe antibiotics and analgesics after surgery for around five days to prevent infection. This study aims to know if the use of antibiotics prescription after third molar extraction is necessary. Hence, minimizing the adverse effect of antibiotics in dental practice.

## 2 METHODS

A systematic review was conducted according to the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) (Page et al. 2021).

### 2.1 Search strategy

A systematic literature search was performed on five databases: PubMed, SpringerLink, ScienceDirect, EBSCO, and Wiley to retrieve potential eligible articles published over the last 5 years till July 2022. A search string was created on the basis of the PICO model. The string (“Odontectomy” OR “Third molar extraction”) AND (“Antibiotics”) was launched on the databases.

### 2.2 Inclusion/exclusion criteria

The included studies were all full-text articles and human studies written in English. The article database included medicine, dentistry, oral maxillofacial surgery, health, and medical collection. The exclusion criteria were animal, modeling, and *in vitro* studies. Review articles were also excluded (Figure 1).

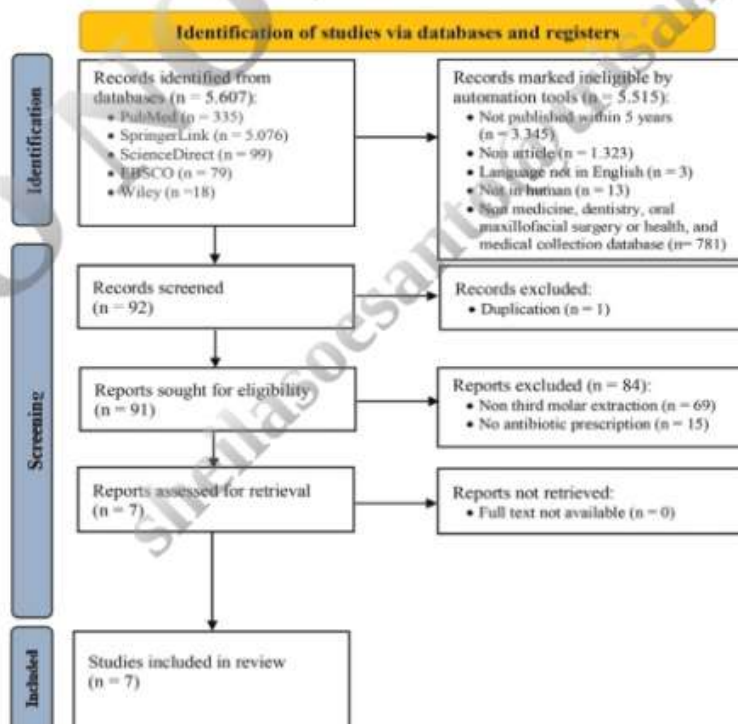


Figure 1. Flow chart of the review process.

### 2.3 Study selection

All identified references were organized and four reviewers (R.A.H, S.S, S.B.G, and P.N) independently screened the article first by titles and abstracts then based on full texts. Disagreements on the eligibility of articles were resolved by discussion between reviewers.

## 3 MAIN FINDINGS

Antibiotics play a big role in the treatment of third molar surgery. Almost all dentists prescribe antibiotics as the number one pro-drug to prevent infection after third molar surgery. Antibiotics can decrease postoperative pain and analgesic consumption after removal of third molar surgery (Brammah et al. 2017; Donmezer & Bilginaylar 2021; Khooharo et al. 2021; Yanine et al. 2021). Trismus, dry socket, alveolar osteitis, and edema are examples of postoperative pain (Khooharo et al. 2021; Momeni et al. 2021; Yanine et al. 2021). Antibiotics that dentists usually use to prevent the infection are amoxicillin and clindamycin (Brammah et al. 2017; Donmezer & Bilginaylar 2021; Janas-Naze et al. 2022; Khooharo et al. 2021; Yanine et al. 2021). Both antibiotics can reduce the pain and prevent infection. Others also stated that patients who use antibiotics after their third molar surgery improved their QoL (Brammah et al. 2017). Antibiotics are often compared with placebo and NSAID, and it is found that antibiotics are still effective in preventing pain (Momeni et al. 2021; Yanine et al. 2021). However, long-term use of antibiotics can affect antibiotic-resistant bacteria, so dentists need to use antibiotics rationally (Jung et al. 2019). As seen in Table 1, antibiotics can also reduce swelling mainly caused by bacteria (Momeni et al. 2021).

Table 1. Margin settings.

| Author, Year           | Type of Study    | Subjects  | Relevant findings  |
|------------------------|------------------|---|--|
| Donmezer et al. 2021   | Research article | Local antibiotics, and systemic antibiotics, impacted third molar surgery | Both statistically decreasing pain and analgesic consumption, the results of local and systemic antibiotic therapy with the use of platelet-rich fibrin (PRF) following removal of the mandibular third molar were comparable  |
| Yanine et al. 2021     | Research article | Antibiotic prophylaxis, impacted third molar tooth extraction             | When compared to a placebo, the use of 2 grams of amoxicillin after third molar surgery can decrease bacterial-contamination and reduce postoperative pain   |
| Brammah et al. 2017    | Research article | Oral antibiotics, QoL, third molar surgery                                | Following the third molar surgery, there was a major decline in QoL, especially in postoperative days (POD) 1 and 3. By the seventh day, however, it had gradually restored to its preoperative level. Additionally, it was found that QoL was marginally improved in the extended amoxicillin/clavulanic group compared to the single bolus levofloxacin and amoxicillin/ clavulanic groups |
| Khooharo et al. 2021   | Research article | Dry socket, mandibular third molar, amoxicillin                           | Amoxicillin can reduce infection and dry socket after third molar extraction   |
| Momeni et al. 2021     | Research article | Mandibular impacted third molar, amoxicillin                              | Antibiotic treatment can prevent the after-effect of third molar surgery   |
| Janas-Naze et al. 2022 | Research article | Clindamycin, third molar extraction, efficacy                             | Lower clindamycin dosages given over shorter time periods are effective in alleviating pain and minimizing postoperative complications after third molar surgery   |
| Jung et al. 2019       | Research article | Odontogenic infection, extraction of maxillary molars, metronidazole      | Antibiotic therapy is effective to prevent bacterial infection.  |

Therefore, antibiotics are still very useful to be used after third molar surgery.

#### 4 CONCLUSIONS

Clinicians must establish an adequate diagnosis to understand the risk of infection and complications. Antibiotics minimize the risk of postoperative complications such as dry socket, pain, and swelling. This shows that antibiotics prescription is still recommended after the third molar extraction. Prophylactic antibiotics should only be given to patients with medical compromises.

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# A Systematic Review to Evaluate the Role of Antibiotics in Third Molar Extraction

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## **A Systematic Review to Evaluate the Role of Antibiotics in Third Molar Extraction**

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## **ABSTRACT**

### **Background(s):**

[Third molar extraction has become a frequent surgical practice for dentist. To minimize the post extraction infection, antibiotics prescription is usually given. However, excessive antibiotics usage may also lead to several adverse reaction and bacterial resistance.]

### **Objective(s)**

[This study is to understand the advantages and the risk of antibiotics prescription on third molar removal treatment.]

### **Method(s):**

[A systematic research was done on PubMed, SpringerLink, ScienceDirect, EBSCO and Wiley using the search term (“Odontectomy” OR “Third molar extraction”) AND (“Antibiotics”). For this study, 92 articles were examined and only 7 were selected for this review. The Preferred Reporting Item for Systematic Review and Meta-Analyses (PRISMA) guidelines was used.]

### **Main finding(s):**

[Antibiotics such as clindamycin and penicillin reduce trismus, swelling and pain after postoperative compared to placebo. Patient’s quality of life is also slightly better in patients who were prescribed amoxicillin after surgery. Amoxicillin also reduces postoperative infections such as alveolar osteitis and dry socket.]

### **Conclusion(s):**

[Antibiotics are still preferable to be given after third molar extraction. Proper extraction method and drug dosage must be fully understood by the operator to minimize infection and the drug’s adverse effect.]

Keywords:

[antibiotics, postoperative infection, third molar extraction]

## BACKGROUND(s)

[Third molar extraction is a common procedure in dental practice. The prevalence of third molar impaction is 24% throughout the globe.<sup>1</sup> This procedure has several postoperative complications such as alveolitis, bleeding, infection, and nerve damage.<sup>2</sup> Dentist usually prescribe patients with preoperative prophylaxis antibiotics although it showed no significant difference in preventing the complications.<sup>3</sup>

Antibiotic is used as antimicrobial agent for bacteria. In dentistry, it can be prophylaxis which is given to prevent infection or therapeutic which is used to resolve the undergoing infection.<sup>4</sup> It is usually given in cases with bleeding to prevent bacteremia. Furthermore, antibiotic prophylaxis is needed for patients with endocarditis, immunocompromised condition, organ failure and pregnancy.<sup>5</sup> Amoxicillin is the most prescribed by dentist.<sup>6</sup>

Over-prescription of antibiotics may lead in bacterial resistance such as *Clostridium difficile*.<sup>7</sup> In 2015, World Health Organization (WHO) released worldwide plan to resolve the antimicrobial resistance problems.<sup>8</sup> One of the suggestions is to prescribe antibiotics according to the definitive diagnosis. This study aims to understand the importance of antibiotics prescription after third molar extraction. Hence, minimizing the adverse effect of antibiotics in dental practice.]

## METHOD(s)

[A systematic review was conducted according to the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA).<sup>9</sup>

### Search Strategy

A systematic literature search was performed on five databases: PubMed, SpringerLink, ScienceDirect, EBSCO and Wiley to retrieve potential eligible articles published from over the last 5 years up to July



2022. <sup>1</sup> A search string was created on the basis of the PICO model. The string (“Odontectomy” OR “Third molar extraction”) AND (“Antibiotics”) was launched on the databases.

### **Inclusion/exclusion criteria**

The included studies were all full text article in human studies written in English. Article database included medicine, dentistry, oral maxillofacial surgery, health and medical collection. The exclusion criteria were animal, modelling and in vitro studies. Review article were also excluded (Figure 1).

### **Study Selection**

All identified references were organized and four reviewers (R.A.H, S.S, S.B.G, and P.N) independently screened the article first by titles and abstracts then based on full texts. Disagreements on the eligibility of articles were resolved by discussion between reviewers.]

### **MAIN FINDING(S)**

[Antibiotics play a big role in the treatment of third molar surgery. Almost all dentist prescribe antibiotics as number one pro-drug to prevent infection after third molar surgery. Antibiotics can decrease post-operative pain and analgesic consumption after removal of third molar surgery.<sup>10-13</sup> Trismus, dry socket, or alveolar osteitis, and edema are the example of post-operative pain.<sup>11,13,14</sup> Antibiotics that dentist usually used to prevent the infection are amoxicillin and clindamycin.<sup>10-13,15</sup> Both antibiotics can reduce the pain and prevent infection. Others also stated that patient who use antibiotics after third molar surgery improved their Quality of Life.<sup>12</sup>

Antibiotics often compared with placebo and NSAID, and it is found that antibiotics still effective in preventing pain.<sup>11,14</sup> However, long term use of antibiotics can affect the antibiotic resistant bacteria,

so dentists need to use antibiotics rationally.<sup>16</sup> Antibiotics can also reduce swelling mainly caused by bacteria (Table 1).<sup>14</sup> Therefore, antibiotics are still very useful to be used after third molar surgery.]

## **CONCLUSION(s)**

[Clinicians must establish an adequate diagnosis to understand the risk of infection and complication. Antibiotics minimize the risk of postoperative complications such as dry socket, pain and swelling. This shows that antibiotics prescription is still recommended after third molar extraction. Prophylactic antibiotics should only be given to patient with medical compromises.]

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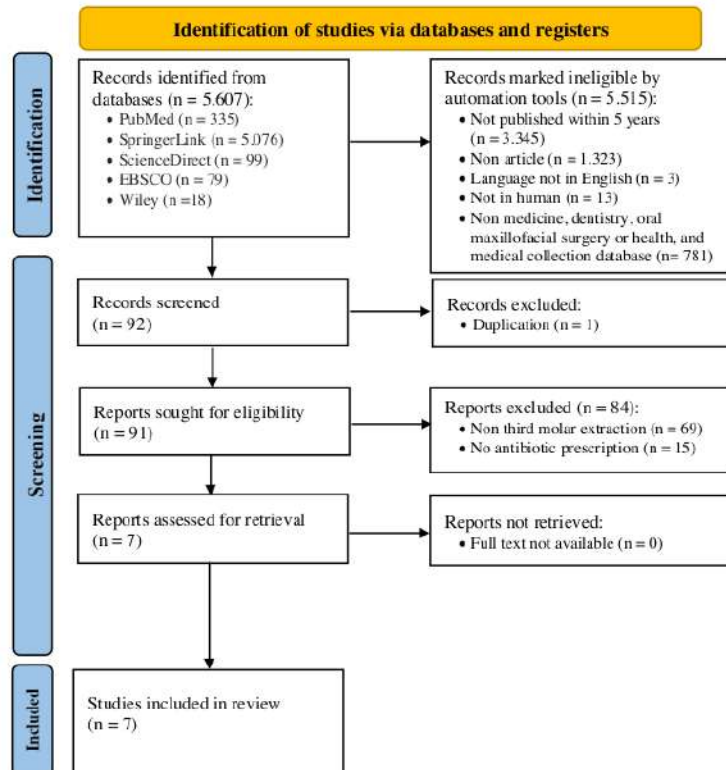
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## TABLES

**Table 1. [Paper Results]**

| <b>Author, Year</b>                         | <b>Type of Study</b> | <b>Subjects</b>   | <b>Relevant findings</b>   |
|---|----------------------|---|--|
| <b>Donmezer et al, 2021</b> <sup>10</sup>   | Research article     | Local antibiotics, systemic antibiotics, impacted third molar surgery | Both statistically decreasing pain and analgesic consumption, the results of local and systemic antibiotic therapy with the use of Platelet Rich Fibrin (PRF) following removal of the mandibular third molar were comparable  |
| <b>Yanine et al, 2021</b> <sup>11</sup>     | Research article     | Antibiotic prophylaxis, impacted third molar tooth extraction         | When compared to a placebo, the use of 2 grams of amoxicillin after third molar surgery can decrease bacterial contamination and reduce postoperative pain   |
| <b>Braimah et al, 2017</b> <sup>12</sup>    | Research article     | Oral antibiotics, quality of life, third molar surgery                | Following third molar surgery, there was a major decline in Quality of Life (QoL), especially in postoperative day (POD) 1 and 3. By the seventh day, however, it had gradually restored to its preoperative level. Additionally, it was found that QoL was marginally improved in the extended amoxicillin/clavulanic group compared to the single bolus levofloxacin and amoxicillin/clavulanic groups |
| <b>Khooharo et al, 2021</b> <sup>13</sup>   | Research article     | Dry socket, mandibular third molar, amoxicillin                       | Amoxicillin can reduce infection and dry socket after third molar extraction   |
| <b>Momeni et al, 2021</b> <sup>14</sup>     | Research article     | Mandibular impacted third molar, amoxicillin                          | Antibiotic treatment can prevent the after effect of third molar surgery   |
| <b>Janas-Naze et al, 2022</b> <sup>15</sup> | Research article     | Clindamycin, third molar extraction, efficacy                         | Lower clindamycin dosages given over shorter time periods are effective in alleviating pain and minimizing post-operative complications after third molar surgery  |
| <b>Jung et al, 2019</b> <sup>16</sup>       | Research article     | Odontogenic infection, extraction maxillary molars, metronidazole     | Antibiotic therapy is effective to prevent bacterial infection.  |

## FIGURES



**Figure 1.** [Flow chart of review process]

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