Understanding Pain after Dental Procedures - POPS

NIDCR Protocol Number: 19-073-E
NIDCR Grant Number: 4 UH3 DE029158-03
Principal Investigator: Muhammad Walji, PhD
NIDCR Program Official: Dena Fischer, DDS, MSD, MS
NIDCR Medical Monitor: Kevin McBryde, MD

POPS Study Practitioner Messaging Content

Version Number: 2.0
February 8, 2022
1. Practitioners’ Invitational message content

Day 0:

<table>
<thead>
<tr>
<th>Message</th>
</tr>
</thead>
<tbody>
<tr>
<td>Your patient has enrolled in the study. Please complete the Day 0 eCRF [do not reply to this text]</td>
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</tbody>
</table>

Days 1, 3, 5, 7, 14, 21 (only if alerts are triggered):

<table>
<thead>
<tr>
<th>Message</th>
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</table>
| Hello,

The following alerts have been triggered:

Swelling Worse, Patient Comment, Bleeding Worse.

Procedure Date: MM/DD/YYYY
Response Date: MM/DD/YYYY |

SUS Invitational message (Ramp-Up)

<table>
<thead>
<tr>
<th>Message</th>
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<tbody>
<tr>
<td>We thank you for being part of the Network’s POPS study. Please complete the following questions on your experience using the FollowApp.Care platform using text messages as part of your patient’s recovery. By clicking on the link below, you are agreeing to take the survey {{SURVEY_URL}} System Usability Scale (SUS)</td>
</tr>
</tbody>
</table>

UTAUT Invitational message (Full Study)

<table>
<thead>
<tr>
<th>Message</th>
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<td></td>
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</tbody>
</table>

Page 2 of 3
We thank you for being part of the Network’s POPS study. Please complete the following questions on your experience using the FollowApp.Care platform using text messages as part of your patient’s recovery. By clicking on the link below, you are agreeing to take the survey

{{SURVEY_URL}} Unified Theory of Acceptance and Use of Technology (UTAUT)
Understanding Pain after Dental Procedures - POPS

NIDCR Protocol Number: 19-073-E
NIDCR Grant Number: 1 UG3 DE029158-01
Principal Investigator: Muhammad Walji, PhD
NIDCR Program Official: Dena Fischer, DDS, MSD, MS
NIDCR Medical Monitor: Kevin McBryde, MD

POPS Study Practitioner Questionnaires
Version Number: 3.0
Mar 29, 2022
1. eCRF Day 0 (Baseline Data to be collected on the day of the procedure)

<table>
<thead>
<tr>
<th><strong>Provider Identifier (autogenerated by NCC data capture system)</strong></th>
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</thead>
<tbody>
<tr>
<td>Did you receive a message from FollowApp.Care that this patient is enrolled?</td>
</tr>
<tr>
<td>If Yes: On what date did you receive this message: MM/DD/YYYY</td>
</tr>
</tbody>
</table>

**What procedure(s) did you perform?**

1) Endodontics - Surgery
   a) Site (tooth #, quadrant, etc.) - indicate on odontogram
   b) CDT (click all that apply):
      i) D3410: apicoectomy - anterior
      ii) D3421: apicoectomy - premolar (first root)
      iii) D3425: Apicoectomy - molar (first root)
      iv) D3426: Apicoectomy (each additional root)
      v) D3428: bone graft in conjunction with periradicular surgery – per tooth, single site
      vi) D3429: bone graft in conjunction with periradicular surgery – each additional contiguous tooth in the same surgical site
      vii) D3430: retrograde filling - per root
      viii) D3431: biologic materials to aid in soft and osseous tissue regeneration in conjunction with periradicular surgery
      ix) D3432: guided tissue regeneration, resorbable barrier, per site, in conjunction with periradicular surgery
      x) D3450: root amputation – per root
      xi) D3460: endodontic endosseous implant
      xii) D3470: intentional re-implantation (including necessary splinting)
      xiii) D3910: surgical procedure for isolation of tooth with rubber dam
      xiv) D3920: hemisection (including any root removal), not including root canal therapy
      xv) D3950: canal preparation and fitting of preformed dowel or post
      xvi) D3999: unspecified endodontic procedure, by report
   c) Date: MM/DD/YYYY
   d) Related diagnoses (click all that apply)
      i) Symptomatic reversible pulpitis
      ii) Symptomatic irreversible pulpitis
      iii) Necrosis of the pulp
      iv) Previously completed endodontic therapy
      v) Acute apical abscess
vi) Chronic apical abscess
vii) Internal resorption of tooth
viii) External resorption of tooth
ix) Symptomatic periapical periodontitis
x) Asymptomatic periapical periodontitis
xi) Obliteration of root canal due to abnormal mineralization of tooth
xii) Other: Add text

2) Endodontics - Pulp Treatment (e.g. Pulpotomy, Pulpectomy)
   a) Site (tooth #, quadrant, etc.) – indicate on odontogram
   b) CDT (click all that apply):
      i) D3220: therapeutic pulpotomy (excluding final restoration) – removal of pulp coronal to the dentinocemental junction and application of medicament
      ii) D3221: pulpal debridement, primary and permanent teeth
      iii) D3222: partial pulpotomy for apexogenesis – permanent tooth with incomplete root development
      iv) D3230: pulpal therapy (resorbable filling) – anterior, primary tooth (excluding final restoration)
      v) D3240: pulpal therapy (resorbable filling) – posterior, primary tooth (excluding final restoration)
   c) Date: MM/DD /YYYY
   d) Related diagnoses
      i) Symptomatic reversible pulpitis
      ii) Symptomatic irreversible pulpitis
      iii) Necrosis of the pulp
      iv) Previously completed endodontic therapy
      v) Acute apical abscess
      vi) Chronic apical abscess
     vii) Internal resorption of tooth
     viii) External resorption of tooth
     ix) Symptomatic periapical periodontitis
     x) Asymptomatic periapical periodontitis
     xi) Obliteration of root canal due to abnormal mineralization of tooth
     xii) Tooth fracture with pulp involvement
     xiii) Other: Add text

3) Endodontics – Non-Surgical (e.g. RCT, Re-treat, Apexification)
   a) Site (tooth #, quadrant, etc.) – indicate on odontogram
   b) CDT (click all that apply):
      i) D3310: endodontic therapy, anterior tooth (excluding final restoration)
      ii) D3320: endodontic therapy, premolar tooth (excluding final restoration)
iii) D3330: endodontic therapy, molar tooth (excluding final restoration)
iv) D3331: treatment of root canal obstruction; non-surgical access
v) D3332: incomplete endodontic therapy; inoperable, unrestorable or fractured tooth
vi) D3333: internal root repair of perforation defects
vii) D3346: retreatment of previous root canal therapy – anterior
viii) D3347: retreatment of previous root canal therapy – premolar
ix) D3348: retreatment of previous root canal therapy – molar
x) D3351: apexification/recalcification – initial visit (apical closure/calcific repair of perforations, root resorption, etc.)
xi) D3352: apexification/recalcification – interim medication replacement
xii) D3353: apexification/recalcification – final visit (includes completed root canal therapy – apical closure/calcific repair of perforations, root resorption, etc.)

c) Date: MM/DD /YYYY
d) Related diagnoses
i) Symptomatic reversible pulpitis
ii) Symptomatic irreversible pulpitis
iii) Necrosis of the pulp
iv) Previously completed endodontic therapy
v) Acute apical abscess
vi) Chronic apical abscess
vii) Internal resorption of tooth
viii) External resorption of tooth
ix) Symptomatic periapical periodontitis
x) Asymptomatic periapical periodontitis)
xii) Obliteration of root canal due to abnormal mineralization of tooth
xii) Other: Add text

4) Perio - Surgical
a) Site (tooth #, quadrant, etc.) – indicate on odontogram
b) CDT (click all that apply):
   i. D4210: gingivectomy or gingivoplasty – four or more contiguous teeth or tooth bounded spaces per quadrant
   ii. D4211: gingivectomy or gingivoplasty – one to three contiguous teeth or tooth bounded spaces per quadrant
   iii. D4212: gingivectomy or gingivoplasty to allow access for restorative procedure, per tooth
   iv. D4230: anatomical crown exposure – four or more contiguous teeth or bounded tooth spaces per quadrant
   v. D4231: anatomical crown exposure – one to three teeth or bounded tooth spaces per quadrant
| vi.      | D4240: gingival flap procedure, including root planing – four or more contiguous teeth or tooth bounded spaces per quadrant |
| vii.    | D4241: gingival flap procedure, including root planing – one to three contiguous teeth or tooth bounded spaces per quadrant |
| viii.   | D4245: apically positioned flap |
| ix.     | D4249: clinical crown lengthening – hard tissue |
| x.      | D4260: osseous surgery (including elevation of a full thickness flap and closure) – four or more contiguous teeth or tooth bounded spaces per quadrant |
| xi.     | D4261: osseous surgery (including elevation of a full thickness flap and closure) – one to three contiguous teeth or tooth bounded spaces per quadrant |
| xii.    | D4263: bone replacement graft – retained natural tooth – first site |
| xiii.   | in quadrant |
| xiv.    | D4264: bone replacement graft – retained natural tooth – each additional site in quadrant |
| xv.     | D4266: guided tissue regeneration – resorbable barrier, per site |
| xvi.    | D4267: guided tissue regeneration – non-resorbable barrier, per site (includes membrane removal) |
| xvii.   | D4268: surgical revision procedure, per tooth |
| xviii.  | D4270: pedicle soft tissue graft procedure |
| xix.    | D4273: autogenous connective tissue graft procedure (including donor and recipient surgical sites) first tooth, implant or edentulous tooth position in graft |
| xx.     | D4275: non-autogenous connective tissue graft (including recipient site and donor material) first tooth, implant, or edentulous tooth position in graft |
| xxi.    | D4276: combined connective tissue and double pedicle graft, per tooth |
| xxii.   | D4277: free soft tissue graft procedure (including recipient and donor surgical sites) first tooth, implant, or edentulous tooth position in graft |
| xxiii.  | D4278: free soft tissue graft procedure (including recipient and donor surgical sites) each additional contiguous tooth, implant, or edentulous tooth position in same graft site |
| xxiv.   | D4283: autogenous connective tissue graft procedure (including donor and recipient surgical sites) – each additional contiguous tooth, implant or edentulous tooth position in same graft site |
| xxv.    | D4285: non-autogenous connective tissue graft procedure (including recipient surgical site and donor material) – each additional contiguous tooth, implant or edentulous tooth position in same graft site |

c) Date: MM/DD/YYYY
d) Related diagnoses
   i) Localized Periodontitis
   ii) Generalized Periodontitis
   iii) Gingival abscess
   iv) Periodontal abscess
v) Periodontal and endodontic lesion
vi) Insufficient clinical crown height
vii) Dental peri-implant mucositis
viii) Dental peri-implantitis
ix) Other: Add text

5) Extractions - Simple
   a) Site (tooth #, quadrant, etc.) – indicate on odontogram
   b) CDT (click all that apply):
      i) D7111: extraction, coronal remnants – primary tooth
      ii) D7140: extraction, erupted tooth or exposed root (elevation and/or forceps removal)
   c) Date: MM/DD/YYYY
   d) Related diagnoses
      i) Abnormalities of size and form of teeth
      ii) Tooth crowding
      iii) Tooth eruption disorder
      iv) Non-restorable carious tooth
      v) Periodontitis
      vi) Fracture of tooth
      vii) Pericoronitis
      viii) Other: Add text

6) Extractions - Surgical
   a) Site (tooth #, quadrant, etc.) – indicate on odontogram
   b) CDT (click all that apply):
      i) D7210: extraction, erupted tooth requiring removal of bone and/or sectioning of tooth, and including elevation of mucoperiosteal flap if indicated
      ii) D7220: removal of impacted tooth – soft tissue
      iii) D7230: removal of impacted tooth – partially bony
      iv) D7240: removal of impacted tooth – completely bony
      v) D7241: removal of impacted tooth – completely bony, with unusual surgical complications
      vi) D7250: removal of residual tooth roots (cutting procedure)
      vii) D7251: coronectomy – intentional partial tooth removal
   c) Date: MM/DD/YYYY
   d) Related diagnoses
      i) Retained dental root
      ii) Non-restorable carious tooth
      iii) Pulp necrosis
      iv) Symptomatic periapical periodontitis
      v) Chronic apical abscess
vi) Tooth crowding
vii) Fracture of tooth
viii) Impacted tooth
ix) Pericoronitis
x) Other: Add text

7) Implants - Surgical Procedures
   a) Site (tooth #, quadrant, etc.) – indicate on odontogram
   b) CDT (click all that apply):
      i) D6010: surgical placement of implant body: endosteal implant
      ii) D6011: surgical access to an implant body (second stage implant surgery)
      iii) D6012: surgical placement of interim implant body for transitional prosthesis: endosteal implant
      iv) D6013: surgical placement of mini implant
      v) D6040: surgical placement: eposteal implant
      vi) D6050: surgical placement: transosteal implant
      vii) D6100: implant removal, by report
      viii) D6101: debridement of a peri-implant defect or defects surrounding a single implant, and surface cleaning of the exposed implant surfaces, including flap entry and closure
      ix) D6102: debridement and osseous contouring of a peri-implant defect or defects surrounding a single implant and includes surface cleaning of the exposed implant surfaces, including flap entry and closure
      x) D6103: bone graft for repair of peri-implant defect – does not include flap entry and closure
      xi) D6104: bone graft at time of implant placement
      xii) D6081: scaling and debridement in the presence of inflammation or mucositis of a single implant, including cleaning of the implant surfaces, without flap entry and closure
   c) Date: MM/DD/YYYY
   d) Related diagnoses
      i) Dental peri-implant mucositis
      ii) Dental peri-implantitis
      iii) Failure of osseointegration of dental implant
      iv) Acquired absence of teeth
      v) Other: Add text

8) Oral Surgery Other
   a) Site (tooth #, quadrant, etc.) – indicate on odontogram
   b) CDT (click all that apply):
      i) D7260: oroantral fistula closure
      ii) D7261: primary closure of a sinus perforation
iii) D7270: tooth re-implantation and/or stabilization of accidentally evulsed or displaced tooth
iv) D7272: tooth transplantation (includes re-implantation from one site to another and splinting and/or stabilization)
v) D7280: exposure of an unerupted tooth
vi) D7282: mobilization of erupted or malpositioned tooth to aid eruption
vii) D7283: placement of device to facilitate eruption of impacted tooth
ix) D7285: incisional biopsy of oral tissue – hard (bone, tooth)
x) D7286: incisional biopsy of oral tissue – soft
xi) D7290: surgical repositioning of teeth
xii) D7291: transseptal fiberotomy/supra crestal fiberotomy, by report
xiii) D7292: placement of temporary anchorage device [screw retained plate] requiring flap
xiv) D7298: removal of temporary anchorage device [screw retained plate], requiring flap
xv) D7293: placement of temporary anchorage device requiring flap
xvi) D7299: removal of temporary anchorage device, requiring flap
xvii) D7294: placement of temporary anchorage device without flap; includes device removal
xviii) D7300: removal of temporary anchorage device without flap
xix) D7295: harvest of bone for use in autogenous grafting procedure
xx) D7296: corticotomy – one to three teeth or tooth spaces, per quadrant
xxi) D7297: corticotomy – four or more teeth or tooth spaces, per quadrant
xxii) D7310: alveoloplasty in conjunction with extractions – four or more teeth or tooth spaces, per quadrant
xxiii) D7311: alveoloplasty in conjunction with extractions – one to three teeth or tooth spaces, per quadrant
xxiv) D7320: alveoloplasty not in conjunction with extractions – four or more teeth or tooth spaces, per quadrant
xxv) D7321: alveoloplasty not in conjunction with extractions – one to three teeth or tooth spaces, per quadrant
xxvi) D7340: vestibuloplasty – ridge extension (secondary epithelialization)
xxvii) D7350: vestibuloplasty – ridge extension (including soft tissue grafts, muscle reattachment, revision of soft tissue attachment and management of hypertrophied and hyperplastic tissue)
xxviii) D7410: excision of benign lesion up to 1.25 cm
xxix) D7411: excision of benign lesion greater than 1.25 cm
xxx) D7412: excision of benign lesion, complicated
xxxii) D7413: excision of malignant lesion up to 1.25 cm
xxxiii) D7414: excision of malignant lesion greater than 1.25 cm
xxxv) D7415: excision of malignant lesion, complicated
xxxiv) D7440: excision of malignant tumor – lesion diameter up to 1.25 cm
<table>
<thead>
<tr>
<th></th>
<th>Procedure Description</th>
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<tbody>
<tr>
<td>xxxv)</td>
<td>D7441: excision of malignant tumor – lesion diameter greater than 1.25 cm</td>
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<tr>
<td>xxxvi)</td>
<td>D7450: removal of benign odontogenic cyst or tumor – lesion diameter up to 1.25 cm</td>
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<tr>
<td>xxxvii)</td>
<td>D7451: removal of benign odontogenic cyst or tumor – lesion diameter greater than 1.25 cm</td>
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<tr>
<td>xxxviii)</td>
<td>D7460: removal of benign nonodontogenic cyst or tumor – lesion diameter up to 1.25 cm</td>
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<tr>
<td>xxxix)</td>
<td>D7461: removal of benign nonodontogenic cyst or tumor – lesion diameter greater than 1.25 cm</td>
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<tr>
<td>x)</td>
<td>D7465: destruction of lesion(s) by physical or chemical method, by report</td>
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<td>xi)</td>
<td>D7471: removal of lateral exostosis (maxilla or mandible)</td>
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<td>xii)</td>
<td>D7472: removal of torus palatinus</td>
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<td>xiii)</td>
<td>D7473: removal of torus mandibularis</td>
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<td>xiv)</td>
<td>D7485: reduction of osseous tuberosity</td>
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<tr>
<td>xlv)</td>
<td>D7490: radical resection of maxilla or mandible</td>
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<tr>
<td>xlvii)</td>
<td>D7510: incision and drainage of abscess – intraoral soft tissue</td>
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<tr>
<td>xlviii)</td>
<td>D7520: incision and drainage of abscess – extraoral soft tissue – complicated</td>
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<td>li)</td>
<td>(includes drainage of multiple fascial spaces)</td>
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<tr>
<td>lii)</td>
<td>D7530: removal of foreign body from mucosa, skin, or subcutaneous alveolar tissue</td>
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<td>liii)</td>
<td>D7540: removal of reaction producing foreign bodies, musculoskeletal system</td>
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<tr>
<td>liv)</td>
<td>D7550: partial ostectomy/sequestrectomy for removal of non-vital bone</td>
</tr>
<tr>
<td>lv)</td>
<td>D7610: maxilla – open reduction (teeth immobilized, if present)</td>
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<tr>
<td>lvi)</td>
<td>D7620: maxilla – closed reduction (teeth immobilized, if present)</td>
</tr>
<tr>
<td>lvii)</td>
<td>D7630: mandible – open reduction (teeth immobilized, if present)</td>
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<tr>
<td>lviii)</td>
<td>D7640: mandible – closed reduction (teeth immobilized, if present)</td>
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<tr>
<td>lix)</td>
<td>D7650: malar and/or zygomatic arch – open reduction</td>
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<tr>
<td>lx)</td>
<td>D7660: malar and/or zygomatic arch – closed reduction</td>
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<tr>
<td>lxi)</td>
<td>D7670: alveolus – closed reduction, may include stabilization of teeth</td>
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<tr>
<td>lxii)</td>
<td>D7671: alveolus – open reduction, may include stabilization of teeth</td>
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<tr>
<td>lxiii)</td>
<td>D7680: facial bones – complicated reduction with fixation and multiple surgical</td>
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<tr>
<td></td>
<td>approaches</td>
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<tr>
<td>lxiv)</td>
<td>D7710: maxilla – open reduction</td>
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<tr>
<td>lxv)</td>
<td>D7720: maxilla – closed reduction D7730 mandible – open reduction</td>
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<tr>
<td>lxvi)</td>
<td>D7740: mandible – closed reduction</td>
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<tr>
<td>lxvii)</td>
<td>D7750: malar and/or zygomatic arch – open reduction</td>
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<tr>
<td>lxviii)</td>
<td>D7760: malar and/or zygomatic arch – closed reduction</td>
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<tr>
<td>lxix)</td>
<td>D7770: alveolus – open reduction stabilization of teeth</td>
</tr>
<tr>
<td>lxx)</td>
<td>D7771: alveolus, closed reduction stabilization of teeth</td>
</tr>
</tbody>
</table>
lxxi) D7810: open reduction of dislocation
lxxii) D7820: closed reduction of dislocation
lxxiii) D7830: manipulation under anesthesia
lxxiv) D7840: condylectomy
lxxv) D7850: surgical discectomy, with/without implant
lxxvi) D7852: disc repair
lxxvii) D7854: synovectomy
lxxviii) D7856: myotomy
lxxix) D7858: joint reconstruction
lxxx) D7860: arthrotomy
lxxxi) D7865: arthroplasty
lxxi) D7870: arthrocentesis
lxxxi) D7871: non-arthroscopic lysis and lavage
lxxxi) D7872: arthroscopy – diagnosis, with or without biopsy
lxxxi) D7873: arthroscopy: lavage and lysis of adhesions
lxxxi) D7874: arthroscopy: disc repositioning and stabilization
lxxxi) D7875: arthroscopy: synovectomy
lxxxi) D7876: arthroscopy: discectomy
lxxxi) D7877: arthroscopy: debridement
xc) D7910: suture of recent small wounds up to 5 cm
xci) D7911: complicated suture – up to 5 cm
xcii) D7912: complicated suture – greater than 5 cm
xciii) D7920: skin graft (identify defect covered, location and type of graft)
xciv) D7922: placement of intra-socket biological dressing to aid in hemostasis or clot stab
xcv) D7941: osteotomy – mandibular rami
xcvi) D7943: osteotomy – mandibuilization, per site
xcvii) D7944: osteotomy – segmented or subapical
xcviii) D7945: osteotomy – body of mandible
xcix) D7946: LeFort I (maxilla – total)
c) D7947: LeFort I (maxilla – segmented)
ci) D7948: LeFort II or LeFort III (osteoplasty of facial bones for midface hypoplasia or retrusion) – without bone graft
ci) D7949: LeFort II or LeFort III – with bone graft
ciii) D7950: osseous, osteoperiosteal, or cartilage graft of the mandible or maxilla – autogenous or nonautogenous, by report
civ) D7951: sinus augmentation with bone or bone substitutes via a lateral open approach
cv) D795: sinus augmentation via a vertical approach
cvi) D7953: bone replacement graft for ridge preservation – per site
cvii) D7955: repair of maxillofacial soft and/or hard tissue defect
cviii) D7961: buccal / labial frenectomy (frenulectomy)
cix) D7962: lingual frenectomy (frenulectomy)
cx) D7963: surgical placement of craniofacial implant – extra oral
cxi) D7970: excision of hyperplastic tissue – per arch
cxii) D7971: excision of pericoronal gingiva
cxiii) DD7972: surgical reduction of fibrous tuberosity
cxiv) D7979: non – surgical sialolithotomy
cxv) D7980: surgical sialolithotomy
cxvi) D7981: excision of salivary gland, by report
cxvii) D7982: sialodochoplasty
cxviii) D7983: closure of salivary fistula
cix) D7990: emergency tracheotomy
cxx) D7991: coronoidectomy
cxxi) D7993: surgical placement of craniofacial implant – extra oral
cxxii) D7994: surgical placement: zygomatic implant
cxxiii) D7995: synthetic graft – mandible or facial bones, by report
cxxiv) D7996: implant-mandible for augmentation purposes (excluding alveolar ridge), by report
cxxv) D7997: appliance removal (not by dentist who placed appliance), includes removal of archbar
cxxvi) D7998: intraoral placement of a fixation device not in conjunction with a fracture
cxxvii) D7999: unspecified oral surgery procedure, by report
c) Date: MM/DD/YYYY
d) Related diagnoses
  i) Fibrous epulis
  ii) Flabby alveolar ridge
  iii) Insufficient biological width
  iv) Exostosis of jaw
  v) Irregular alveolar process
  vi) Sequestrum of jawbone
  vii) Impacted tooth
  viii) Other: Add text

As part of your pain management plan, what medications were prescribed? (Select all that apply - checkboxes)
- None
  - Acetaminophen (Tylenol)
    o Name
    o Dose
    o Frequency
  - Ibuprofen (Advil, Motrin)
    o Name
<table>
<thead>
<tr>
<th>Medication Type</th>
<th>Dose</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acetaminophen and Ibuprofen (Advil Dual Action)</td>
<td></td>
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<tr>
<td>Naproxen (Aleve)</td>
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<tr>
<td>Opioids (Codeine, Hydrocodone, Oxycodone)</td>
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<tr>
<td>Combination Drug (Tylenol #3, Norco, Vicodin, Percocet, Percodan, Vicoprofen)</td>
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<tr>
<td>Antibiotics (Amoxicillin, Penicillin, Clindamycin, Erythromycin)</td>
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<tr>
<td>Steroid (Medrol)</td>
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<tr>
<td>Other medications for dental pain</td>
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</tbody>
</table>

Did the patient receive a long-acting local anesthetic as part of the procedure? (bupivacaine, etidocaine)

- Yes
- No

What do you expect the patient’s pain level to be?

- 0 - 10 scale
  - No pain (0) - Moderate pain (5) - Worst imaginable pain (10)
a. Immediate post-op (Day 1)
b. Short-term (Day 3 - 5)
c. Long-term (after the 1st week)

On what day post-procedure do you anticipate the patient will be free of pain?
Day 1-21

2. eCRF Day 21 – Data to be completed 21 days after visit

Did the patient contact your office regarding their procedure within 21 days after the procedure?
If so, was it via:
- No contact
- Phone call
- Email
- Office visit
  - Unscheduled
  - Scheduled

Did you change your pain management plan?
[Display Day 0 Plan]
- No
- Yes (Click all that apply)
  - Due to information received through the app
  - Due to office communication (phone call, email, office visit)
  - Other

If Yes, what were the changes (select all that apply.):
- Stop medications
- Increase medication dosage/frequency
- Decrease medication dosage/frequency
- Switch medications
  - Name
  - Dose
  - Frequency
- Add additional medications
  - Name
  o Dose
3. UTAUT Questionnaire for Practitioners after the study has been completed (via REDCap)

Please rate your agreement with each statement below (Select from 1 to 7, from Strongly Disagree {1} to Strongly Agree {7})

1. I find FollowApp useful in my job.
2. Using FollowApp enables me to accomplish tasks more quickly.
3. Using FollowApp increases my productivity.
4. Using FollowApp will increase my chances of increasing my income.
5. My interaction with FollowApp is clear and understandable.
6. It is easy for me to become skillful at using FollowApp.
7. FollowApp is easy to use.
8. Learning to operate FollowApp is easy for me.
9. Using FollowApp is a good idea.
10. FollowApp makes work more interesting.
11. Working with FollowApp is fun.
12. I like working with FollowApp.
13. People who influence my behavior think that I should use FollowApp.
14. People who are important to me think that I should use FollowApp.
15. The clinical management has been helpful in the use of FollowApp.
16. In general, my dental office has supported the use of FollowApp.
17. I have the resources necessary to use FollowApp.
18. I have the knowledge necessary to use FollowApp.
<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>19.</td>
<td>FollowApp is not compatible with other systems I use.</td>
</tr>
<tr>
<td>20.</td>
<td>A specific person (or group) is available for assistance with FollowApp difficulties.</td>
</tr>
<tr>
<td>21.</td>
<td>I could complete a job or task using FollowApp if there was no one around to tell me what to do as I go.</td>
</tr>
<tr>
<td>22.</td>
<td>I could complete a job or task using FollowApp if I could call someone for help if I got stuck.</td>
</tr>
<tr>
<td>23.</td>
<td>I could complete a job or task using FollowApp if I had a lot of time to complete the job for which the software was provided.</td>
</tr>
<tr>
<td>24.</td>
<td>I could complete a job or task using FollowApp if I had just the built-in help functionality for assistance.</td>
</tr>
<tr>
<td>26.</td>
<td>It scares me to think that I could lose a lot of information using FollowApp by hitting the wrong key.</td>
</tr>
<tr>
<td>27.</td>
<td>I hesitate to use FollowApp for fear of making mistakes I cannot correct.</td>
</tr>
<tr>
<td>28.</td>
<td>FollowApp is somewhat intimidating to me.</td>
</tr>
<tr>
<td>29.</td>
<td>If available, I intend to continue using FollowApp.</td>
</tr>
<tr>
<td>30.</td>
<td>If available, I predict I would continue using FollowApp.</td>
</tr>
<tr>
<td>31.</td>
<td>If available, I plan to continue using FollowApp.</td>
</tr>
</tbody>
</table>
Understanding Pain after Dental Procedures - POPS

NIDCR Protocol Number: 19-073-E
NIDCR Grant Number: 1 UG3 DE029158-01
Principal Investigators:  Elsbeth Kalenderian DDS, MPH, PhD
Muhammad Walji, PhD
NIDCR Program Official:  Dena Fischer, DDS, MSD, MS
NIDCR Medical Monitor: Kevin McBryde, MD

POPS Study Patient Messaging Content

Version Number: 1.0
May 25, 2021
1. Patients’ Invitational message content

Day 0: Welcome message

<table>
<thead>
<tr>
<th>Message</th>
</tr>
</thead>
<tbody>
<tr>
<td>Welcome to the POPS study! Over the next three weeks you will receive a series of messages from your provider to check on you after your procedure. Please click on the following link to get started: {{SURVEY_URL}}. For more information about this study, click here: {{study_info_link}}</td>
</tr>
</tbody>
</table>

Days 1, 3, 5, 7, 14, 21:

<table>
<thead>
<tr>
<th>Message</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dear [patientfirstname], we would like to help you during your recovery. Please allow us to monitor your progress by answering this brief health check. {{SURVEY_URL}}. Best wishes, Dr. [DoctorLastname] [do not reply to this text]</td>
</tr>
</tbody>
</table>

Day 23: SUS

<table>
<thead>
<tr>
<th>Message</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thank you for being part of the POPS dental research study. For this last survey, please click on the link to complete questions describing your experience using text messages as part of your recovery. By clicking on the link below, you are agreeing to take the survey. {{SURVEY_URL}} SUS Questionnaire</td>
</tr>
</tbody>
</table>

Day 24: Thank You

<table>
<thead>
<tr>
<th>Message</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thank you for your participation in the POPS study, we appreciate your time and effort. Based on the number of surveys you completed, you will receive your compensation check in about 6 weeks via mail from the University of Alabama at Birmingham</td>
</tr>
</tbody>
</table>
Understanding Pain after Dental Procedures - POPS

NIDCR Protocol Number: 19-073-E
NIDCR Grant Number: 1 UG3 DE029158-01
Principal Investigators: Elsbeth Kalenderian DDS, MPH, PhD
Muhammad Walji, PhD
NIDCR Program Official: Dena Fischer, DDS, MSD, MS
NIDCR Medical Monitor: Kevin McBryde, MD

POPS Study Patient Questionnaires

Version Number: 1.0

May 25, 2021
1. **mHealth app Questionnaire Day 0**

<table>
<thead>
<tr>
<th>Question</th>
<th>Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Welcome Screen</td>
<td>Hi, [patientfirstname] Let’s get you on the road to recovery! (takes 2 min)</td>
</tr>
</tbody>
</table>

1.1 **Pre-procedural pain question**

<table>
<thead>
<tr>
<th>Question</th>
<th>Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>How intense was your pain at its worst 24 hours before your procedure?</td>
<td>0 - 10 scale No pain (0) - Moderate pain (5) – Worst imaginable pain (10)</td>
</tr>
</tbody>
</table>

1.2 **Patient’s Demographic questionnaire**

In order to provide you with compensation for this study, please answer the following questions:

**Patient Demographic Form**

1. What is your sex/gender? 
   - Male □
   - Female □
   - Other □

2. In what year were you born? Year

3. Are you of Hispanic or Latino origin? 
   - Yes □
   - No □
   - Prefer not to answer □

4. What racial categories best describe you? 
   *(Check all that apply)*
   - American Indian or Alaska Native □
   - Asian □
   - Native Hawaiian or Other Pacific Islander □
   - Black or African-American □
   - White or Caucasian □
   - Prefer not to answer □

5. What type of dental insurance do you have? 
   *(Check all that apply)*

Page 2 of 8
### 6. Indicate your highest level of formal education

- Less than high school diploma
- High school diploma or GED
- Some college/Associate degree
- Bachelor’s degree
- Graduate degree

### 7. How would you describe the community where you live?

- Urban
- Suburban
- Rural

### 8. What is the ZIP Code where you live? __ __ __ __

### 9. Including you, how many people live in your household? _______

### 10. What is your family’s current annual household income from all sources?

- Up-to (less than or equal to) $25,000
- $25,001-$50,000
- $50,001-$100,000
- Over $100,000
- Prefer not to answer

---

### 2. mHealth app Questionnaire for Patients on Days 1, 3, 5

<table>
<thead>
<tr>
<th>Question</th>
<th>Possible Answers</th>
</tr>
</thead>
</table>
| **Welcome Screen** | Hi, [patientfirstname]  
Let’s get you on the road to recovery! (takes 3 min) |
| **1** | Good morning, thanks for participating in your dentist’s study. Please click next to let your dentist know how you are doing.  
Next |
| **2** | What is your level of pain right now?  
0 - 10 scale  
No pain (0) - Moderate pain (5) – Worst imaginable pain (10) |
3. Is there any discomfort from the neighboring teeth or area close to where the procedure was done?
   - 1. Yes
   - 2. No
   - 3. Not sure

4. What medications have you taken related to your dental procedure in the last 24 hours? Click all that apply
   - 1. None
   - 2. Acetaminophen (Tylenol)
   - 3. Ibuprofen (Advil, Aleve, Motrin, Naproxen)
   - 4. Opioids (Codeine, Hydrocodone, Oxycodone)
   - 5. Antibiotics (Amoxycillin, Penicillin, Clindamycin, Erythromycin)
   - 6. Other medications for dental pain

5. If other, please list the medications you are taking: Patient has option to enter text

6. How often have you taken pain medications related to your dental procedure in the last 24 hours?
   - 1. Less than recommended
   - 2. As recommended
   - 3. More than recommended

7. Does your bleeding seem better, about the same, or worse compared to yesterday?
   - 1. No bleeding
   - 2. Better
   - 3. About the same
   - 4. Worse

8. Does your swelling seem better, about the same, or worse compared to yesterday?
   - 1. No swelling
   - 2. Better
   - 3. About the same
   - 4. Worse

9. Do you have any questions or concerns for Dr. [doctorlastname]?
   - 1. Yes
   - 2. No

10. Please write down your questions or concerns for Dr [doctorlastname] and then press continue. For dental emergencies contact your clinic directly (contact information on the following screen). Patient has option to enter text

End

---

3. **mHealth app Questionnaire for Patients on Day 7**

<table>
<thead>
<tr>
<th>Question</th>
<th>Possible Answers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Welcome Screen</td>
<td>Hi, [patientfirstname]. Let’s get you on the road to recovery! (takes 3 min)</td>
</tr>
<tr>
<td>1</td>
<td>Good morning, thanks for participating in your dentist's study. Please click next to let your dentist know how you are doing.</td>
</tr>
<tr>
<td>2</td>
<td>What is your level of pain right now?</td>
</tr>
</tbody>
</table>

For medical emergencies call 911<br>For dental emergencies call [clinic phone]
| 3 | How intense was your pain at its worst following your procedure? | 0 - 10 scale  
No pain (0) - Moderate pain (5) - Worst imaginable pain (10) |
| 4 | Is there any discomfort from the neighboring teeth or area close to where the procedure was done? | 1. Yes  
2. No  
3. Not sure |
| 5 | What medications have you taken related to your dental procedure in the last 24 hours? (Select all that apply) | 1. None  
2. Acetaminophen (Tylenol)  
3. Ibuprofen (Advil, Aleve, Motrin, Naproxen)  
4. Opioids (Codeine, Hydrocodone, Oxycodone)  
5. Antibiotics (Amoxycillin, Penicillin, Clindamycin, Erythromycin)  
6. Other medications for dental pain |
| 6 | If other, please list the medications you are taking: | Patient has option to enter text |
| 7 | How often have you taken pain medications related to your dental procedure in the last 24 hours? | 1. Less than recommended  
2. As recommended  
3. More than recommended |
| 8 | Does your swelling seem better, about the same, or worse compared to yesterday? | 1. No swelling  
2. Better  
3. About the same  
4. Worse |
| 9 | In the past 7 days, have you found it uncomfortable to eat any foods because of the pain from your dental procedure? | The scale for the response is 0-10  
Does not interfere to Completely interferes |
| 10 | In the past 7 days, have you had trouble pronouncing any words because of the pain from your dental procedure? | The scale for the response is 0-10  
Does not interfere to Completely interferes |
| 11 | Please select the one number below that best describes how much pain interfered or prevented you in the past 7 days from doing activities out of bed such as walking sitting in a chair standing at the sink | The scale for the response is 0-10  
Does not interfere to Completely interferes |
| 12 | Please select the one number below that best describes how much pain interfered or prevented you in the past 7 days from falling asleep | The scale for the response is 0-10  
Does not interfere to Completely interferes |
| 13 | Please select the one number below that best describes how much pain interfered or prevented you in the past 7 days from staying asleep | The scale for the response is 0-10  
Does not interfere to Completely interferes |
| 14 | Were you allowed to participate in decisions about your pain treatment as much as you wanted to? | 0-10  
Not at all to Very much so |
| 15 | Select the one number that best shows how satisfied you are with your pain treatment | 0-10  
Extremely Dissatisfied to Extremely Satisfied |
| 16 | Did you use any non-medicine methods to relieve your pain? Check all that apply: | 1. None  
2. Cold pack  
3. Meditation  
4. Deep Breathing  
5. Listen to Music  
6. Distraction (such as watching TV, reading)  
7. Prayer |
### 4. mHealth app Questionnaire for Patients on Days 14 and 21

<table>
<thead>
<tr>
<th>Question</th>
<th>Possible Answers</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Welcome Screen</strong></td>
<td>Hi, [patientfirstname]. Let's get you on the road to recovery! (takes 3 min)</td>
</tr>
<tr>
<td>1  Good morning, thanks for participating in your dentist’s study. Please click next to let your dentist know how you are doing.</td>
<td>Next</td>
</tr>
</tbody>
</table>
| 2  What is your level of pain right now?                                 | 0 - 10 scale  
No pain (0) - Moderate pain (5) - Worst imaginable pain (10) |
| 3  In the past 7 days, have you found it uncomfortable to eat any foods because of the pain from your dental procedure? | The scale for the response is 0-10  
Does not interfere to Completely interferes |
| 4  In the past 7 days, have you had trouble pronouncing any words because of the pain from your dental procedure? | The scale for the response is 0-10  
Does not interfere to Completely interferes |
| 5  Please select the one number below that best describes how much pain interfered or prevented you in the past 7 days from doing activities out of bed such as walking sitting in a chair standing at the sink | The scale for the response is 0-10  
Does not interfere to Completely interferes |
| 6  Please select the one number below that best describes how much pain interfered or prevented you in the past 7 days from falling asleep | The scale for the response is 0-10  
Does not interfere to Completely interferes |
|   | Please select the one number below that best describes how much pain interfered or prevented you in the past 7 days from staying asleep | The scale for the response is 0-10
<table>
<thead>
<tr>
<th></th>
<th>Does not interfere to Completely interferes</th>
</tr>
</thead>
</table>
| 7 | | 1. Yes
|   | 2. No |
|   | 3. Not sure |
| 8 | Is there any discomfort from the neighboring teeth or area close to where the procedure was done? | 1. None
|   | 2. Acetaminophen (Tylenol) |
|   | 3. Ibuprofen (Advil, Aleve, Motrin, Naproxen) |
|   | 4. Opioids (Codeine, Hydrocodone, Oxycodone) |
|   | 5. Antibiotics (Amoxycillin, Penicillin, Clindamycin, Erythromycin) |
|   | 6. Other medications for dental pain |
| 9 | What medications have you taken related to your dental procedure in the last 24 hours? | 1. None
|   | 2. Acetaminophen (Tylenol) |
|   | 3. Ibuprofen (Advil, Aleve, Motrin, Naproxen) |
|   | 4. Opioids (Codeine, Hydrocodone, Oxycodone) |
|   | 5. Antibiotics (Amoxycillin, Penicillin, Clindamycin, Erythromycin) |
|   | 6. Other medications for dental pain |
| 10 | If other, please list the medications you are taking: | Patient has option to enter text |
| 11 | How often have you taken pain medications related to your dental procedure in the last 24 hours? | 1. Less than recommended
|   | 2. As recommended |
|   | 3. More than recommended |
| 12 | Do you have any questions or concerns for Dr. [doctorlastname]? | 1. Yes
|   | 2. No |
| 13 | Please write down your questions or concerns for Dr. [doctorlastname] and then press continue. For dental emergencies contact your clinic directly (contact information on the following screen). | Patient has option to enter text |

**End**

Ending Screen

Thanks for your response. We’ll keep working with Dr. [doctorlastname] to help you recover. The doctor and care team will monitor your responses and get in touch if further action is needed.

For medical emergencies call 911
For dental emergencies call [clinic phone]

---

**5. SUS Questionnaire for Patients on Day 23 (via app)**

Welcome Screen: Hi [patientfirstname], thanks for participating in your dentist’s study. Please click start to answer a few questions about your experience in the study (takes 3 min).

The following questions ask you to rate the text messaging platform (referred to as “the system”) that has sent you text messages from your dentist these last three weeks. Please rate this system from 1 to 5. (Strongly Disagree {1} to Agree {5})

1. I think that I would like to use this system frequently.

2. I found the system unnecessarily complex.

3. I thought the system was easy to use.

4. I think that I would need the support of a technical person to be able to use this system.
<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>5.</td>
<td>I found the various functions in this system were well integrated.</td>
</tr>
<tr>
<td>6.</td>
<td>I thought there was too much inconsistency in this system.</td>
</tr>
<tr>
<td>7.</td>
<td>I would imagine that most people would learn to use this system very quickly.</td>
</tr>
<tr>
<td>8.</td>
<td>I found the system very cumbersome to use.</td>
</tr>
<tr>
<td>9.</td>
<td>I felt very confident using the system.</td>
</tr>
<tr>
<td>10.</td>
<td>I needed to learn a lot of things before I could get going with this system.</td>
</tr>
</tbody>
</table>