
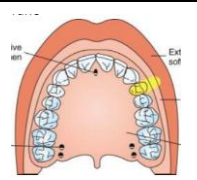

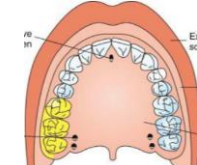

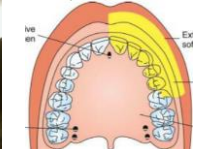

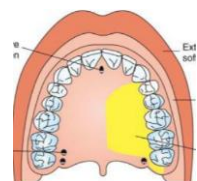

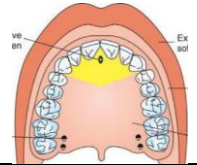

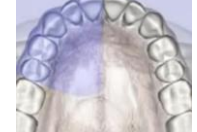


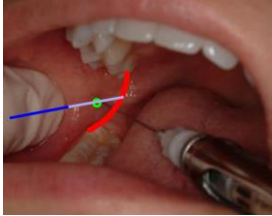
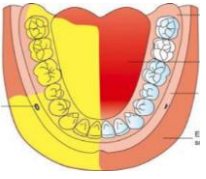

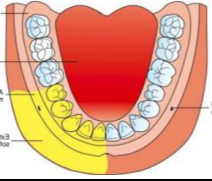
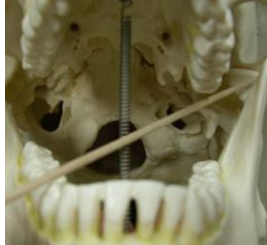
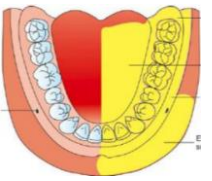

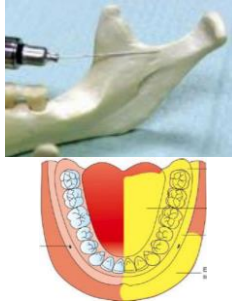


Maxillary blocks

Block	Area affected		Needle	Depth	Volume	Landmark and orientation	Image
Supra periosteal injection Local infiltration	-Pulp: 1~2 teeth adjacent to injection site -Soft tissue: buccal side injection area -Bone: buccal side injection area		27 short	5 mm	0.6 mL 1/3 cart	-Target: tooth apex -Insert: height of vestibule over the tooth -Point the needle parallel to long axis of tooth -Needle tip should be at the tooth apex -Aspirate (1% positive)	 
Posterior superior alveolar neve block	-Pulp: 1 st , 2 nd , 3 rd molar. Misses MB part of 1 st molar 28% of the time -Soft tissue: buccal side molar area -Bone: buccal side molar area		25 short 27 short	16 mm	0.9 mL ~1.8 mL 1/2~1 cart	-Target: pterygomaxillary space -Insert: height of vestibule over 2 nd molar -Point the needle 45° inwards, backwards, upward direction -Bevel towards bone -Aspirate x 2 (3% positive)	 
Infraorbital nerve block Anterior superior alveolar nerve block	-Pulp: incisors (rare), canine, premolars (1 st PM most successful). This is because the ASA nerve branches so early, it is a “field” block, and hard to hit all branches -Soft tissue: buccal tissue, anterior face -Lower eyelid = inferior palpebral n. -Upper lip = superior labial n. -Lateral nose = lateral nasal n. -Bone: supporting bone		25 long 27 short	Until bone felt	0.9 mL ~1.2 mL 1/2~2/3 cart	-Target: infraorbital foramen -Insert: height of vestibule over 1 st premolar (just like infiltration) -Palpate infraorbital foramen (IOF) -Insert needle until bone contacted -Bevel towards bone -Aspirate x 2 (0.7% positive) -Apply finger pressure to force anesthetic into the IOF	  Note: extraoral approach is possible too (directly into foramen)
Greater palatine nerve block	-Posterior hard palate -Anterior border: mesial first premolar -Up to the mid line		27 short	Until bone felt	0.45 mL ~0.6 mL SLOWLY	-Target: greater palatine nerve -Insert: anterior to the greater palatine foramen (to find the foramen, press a swab at 1 st molar and move posteriorly until a depression is felt) -Blanching pressure anesthesia on the foramen -Bevel towards soft tissue -Aspirate (<1% positive)	 
Nasopalatine nerve block	-Anterior hard palate -Posterior border: mesial first premolar -“Canine to canine freezing”		27 short	Until bone felt (<5 mm)	0.45 mL SLOWLY	-Target: incisive foramen -Insert: just lateral to incisive papilla at an angle -Blanching pressure anesthesia on the papilla -Advance until bone is felt then withdraw 1 mm -Aspirate (<1% positive)	 
AMSA *did not go in detail about this block*	-Anterior middle superior alveolar nerve block -Pulp: centrals, canines, premolars -Soft tissue: buccal tissue on these teeth, and palatal tissue up to midline		27 short	Until bone felt	1.8 mL SLOWLY	-Target: imaginary line drawn from 1 st /2 nd premolar contacts to midline on mid-hard palate -Blanch pressure anesthesia on palate -Will work by diffusing through bone -Aspirate (<1% positive)	 
V2 nerve block	-Freezes the entire side of the maxilla before V2 branches into ASA, MSA, PSA	High tuberosity approach -High risk of hematoma		Greater palatine canal approach -Can break needle if canal is not straight -Need to insert at least 2/3 of needle -47.6% obstruction, 31.7% passed into orbit, 8.7% passed into the brain			Complications -Proptosis (bulging eye) -Penetration of orbit and nasal cavity -Blindness due to vasoconstriction of ophthalmic artery or spread of infection

Mandibular blocks

Block	Area affected	Needle*	Depth	Volume	Landmark and orientation	Image
Inferior alveolar nerve block	<ul style="list-style-type: none"> -Pulp: mandibular teeth to midline -Soft tissue: <ul style="list-style-type: none"> -Anterior 2/3 of tongue = lingual n. -Floor of mouth = lingual n. -Lingual tissue/periosteum = lingual n. -Buccal: from tooth 1 to 5 -Bone: <ul style="list-style-type: none"> -Body of mandible = mental n. -Supporting bone 	25 long	20 mm ~25 mm Until bone felt	1.5 mL	<ul style="list-style-type: none"> -Target: IA nerve before it enters the mandibular foramen -Insert: slightly medial to the mandibular ramus -Place a finger on coronoid notch (area of greatest concavity) -Finger should be parallel to occlusal plane -Height of insertion = mid-height of the finger -Between the fingertip and the pterygopalatine raphe, insert about mid-way between these points -Insert until bone is contacted, then withdraw 1 mm -Whole needle goes in = likely in parotid → move anteriorly -Bone contacted early = move posteriorly -Aspirate x 2 (10~15% positive) 	 
Long buccal nerve block	<ul style="list-style-type: none"> -Soft tissue and periosteum adjacent to the mandibular molar teeth 	25 long	Until bone felt	0.3 mL	<ul style="list-style-type: none"> -Save 1/4 of cartridge from IAN for this block -Target: buccal nerve passing over border of ramus -Insert: mucosa distal and buccal to the last molar. Height of insertion is at the height of the occlusal plane -Keep the thumb in the same area as IAN -Aspirate x 2 (0.7% positive) 	 
Gow Gates block	<ul style="list-style-type: none"> -Inferior alveolar nerve -Lingual nerve -Auriculotemporal nerve -Mylohyoid nerve -Long buccal nerve (75% of the time) 	25 long 27 long	25 mm ~30 mm Until bone felt	1.8 mL	<ul style="list-style-type: none"> -Target: lateral aspect of the anterior condyle (V3) -Tell patient to open as wide as possible to bring the condyle forward and make it easier to reach -Condyle is palpated with the fingers while the thumb retracts the cheek -Introduce the needle starting from the contralateral canine -Insert by the distobuccal cusp of the 2nd molar -Bone must be contacted to ensure it is not at the TMJ -Aspirate x 2 (2% positive) 	 
Akinosi-Varizani block	<ul style="list-style-type: none"> -Inferior alveolar nerve -Lingual nerve -Long buccal nerve 	25 long	25 mm	1.8 mL	<ul style="list-style-type: none"> -Used in uncooperative children or patients with trismus -Target: V3 on lingual side of ramus (just superior to lingula) -Insert: medial side of ramus at the height of vestibule adjacent to the last molar -Only mandibular injection that doesn't contact bone -Insert ½ the M-D thickness of ramus. It is 25 mm in adults, but will be smaller in children -Another way to measure depth: hub of needle should be next to the mesial aspect of the 2nd molar -Aspirate x 2 (<10% positive) 	 
Incisive nerve block	<ul style="list-style-type: none"> -Pulp: incisors, canines, premolars (best for premolars), but only for 25 minutes -Buccal mucous membrane anterior to the mental foramen up to the midline, lip, chin 	27 short		0.6 mL	<ul style="list-style-type: none"> -Target: mental nerve exiting the mental foramen -Insert: floor of vestibule anterior or at the level of the mental foramen (approximately under the 1st premolar) -Applying finger pressure and forcing anesthetic into the foramen is not necessary, as it does not statistically improve anesthesia -Aspirate (5.7% positive) 	