for review. Demographic variables were collected. Outcomes of interest included hematoma/seroma incidence, infection, nipple graft loss and pigmentation, and operating room return. Descriptive statistics were calculated. For patients with nipple-areola complex (NAC) grafts, repigmentation quality was rated on a scale from 1 to 5.

RESULTS: Median (interquartile range) age was 18.3 (17.0-20.0) years. Most patients underwent double-incision free nipple graft technique (n=59, 67.0%) with drain placement (n=63, 71.6%). Seventeen patients (19.3%) experienced hematoma, 24 (27.3%) seroma, and two (2.3%) infection. Six patients (6.8%) underwent unplanned reoperation, all for hematoma evacuation. Nine patients (10.2%) underwent planned reoperation, for scar revision or excess tissue excision. Most scars healed appropriately (n=76, 86.4%). Median (IQR) NAC pigmentation score was 6 (4-8.3).

CONCLUSION: Top surgery among TGNB AYA is a safe procedure with comparable complication incidence to those in TGNB adult patients, (Berry et al., 2011; Frederick et al., 2017). Our findings provide healthcare practitioners, insurers, public health officials and legislators evidence of safety and efficacy in chest-masculinizing surgery in TGNB AYA patients.

P112. ADDRESSING THE GREY ZONE IN GENDER AFFIRMING MASTECTOMY: OUTCOMES AND TECHNIQUE CHOICE IN FISCHER GRADE 2 PATIENTS

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PURPOSE: Choice of surgical technique in gender-affirming mastectomy (GAM) can be challenging for Fischer grade 2 patients. In grade 1 the periareolar (PA), and in grade 3 the double incision with free nipple graft (DIFNG) are usually chosen. The decision is more challenging in grade 2 patients where the PA fails to address the skin and the DIFNG is rather extensive. To expand options for this sub-population we have developed two novel techniques, Batwing and Nipple Sparing Double Incision (NSDI). A decision algorithm is included in our work.

METHODS: Single-surgeon retrospective chart review of GAM outcomes (complications, aesthetic revisions) between 2014 and 2021 for Fischer grade 2 patients.

RESULTS: 444 patients underwent GAM, 51 (11%) of which were a Fischer grade 2. 21 patients (5%) were classified as 2A and 30 (6.8%) were classified 2B. The surgical techniques used were PA (20%), Batwing (39%), NSDI (24%) and DIFNG (10%). Four patients developed hematoma requiring take-back for a complication rate of 7.8%. Complication rates for Batwing, NSDI, and PA were 10%, 8% and 7.7% respectively. 12 patients (24%) opted for minor aesthetic revisions under local anesthesia; PA (31%), Batwing (10%), NSDI (17%). There were no complications or revisions recorded in the DIFNG group.

CONCLUSION: In Fischer grade 2 patients, the Batwing and NSDI techniques provide better exposure, allow for better control of NAC position and have a lower aesthetic revision rate than the PA technique with a comparable complication rate. Our algorithm accounts for Fischer grade, unique patient characteristics and desires.

P113. LEGISLATIONS MANDATING INSURANCE COVERAGE ARE HIGHLY EFFECTIVE IN DELIVERING SURGICAL CARE OF TRANSGENDER PATIENTS

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PURPOSE: While gender-affirming surgeries are becoming widely performed, few studies have examined any temporal correlation between legislations mandating transgender care and the actuation of such surgical care.

METHODS: We assembled a retrospective cohort utilizing the National Inpatient Sample (NIS) database from 2000 to 2018. We segregated all major payers in NIS into two groups: 1) those impacted by state-specific legislature, i.e., Medicaid and private insurance, and 2) those not impacted by state-specific legislature, i.e., Medicare and self-pay. All regions according to the latest NIS categorization were examined based on the nature of their member state’s legislations relating to gender-affirming care coverage. Diametrically opposite regions were selected for further comparisons. Interrupted time series analyses were used to demonstrate any significant uptrend since relevant legislations.
RESULTS: In states with explicit inclusion of gender-affirming care, our interrupted time series analyses showed a significant increase in the number of patients covered under state legislation-dependent insurance receiving gender affirming surgeries around the time during which state legislations began mandating care (p<0.01) and in the years thereafter (p<0.01). This significance was not seen among the same regions for patients covered under non-state legislation-dependent insurance. Nor was it seen in either payer group in states without explicit inclusion of gender-affirming care. At the federal level, Medicare recipients exhibited a statistical significance among all states analyzed, regardless of coverage, around the time federal legislations took effect and in the years thereafter.

CONCLUSION: Legislations mandating coverage appear highly effective in actuating surgical care of transgender patients in corresponding jurisdictions.

P114. RECONSTRUCTION OF THE HEMILARYNX AFTER HEMILARYNGECTION FOR UNILATERAL ADVANCED LARYNX TUMORS. THE LEARNING CURVE AFTER 100 CASES OF HEMILARYNGEAL RECONSTRUCTION BY A PREFABRICATED TRACHEA

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PURPOSE: A unilateral advanced tumor on one vocal fold usually is treated by total laryngectomy since the reconstruction of a hemilarynx for sparing one vocal cord is so complex. However, every attempt must be made to avoid total laryngectomy since the loss of speech and the need of a permanent tracheostome dramatically change quality of life of those patients.

METHODS: We present our conventional and modified protocol of hemilarynx reconstruction using a prefabricated trachea segment since trachea has a similar hollow fibrocartilaginous structure, lined with respiratory epithelium (n=100).

RESULTS: In the initial 2-stage protocol we first prefabricated the caudally positioned trachea before tumor resection of the hemilarynx. The trachea does not have an axial vascular pedicle that allows mobilization as a pedicled flap. In the 2nd stage we use the prefabricated trachea to close the hemilarynx defect after tumor resection. However, this protocol may lead to tumor spilling and recurrence.

In actual protocol we resect the hemilarynx tumor in 1st stage and temporarily close the resulting defect with a 2-unit radial forearm free flap: a fascia segment serves to prefabricate the later donor trachea segment and the fasciocutaneous segment closes the actual hemilarynx defect on a temporary tracheostome. In 2nd stage, we restore the hemilarynx defect with the prefabricated trachea sparing one vocal cord. The tracheostome is removed.

CONCLUSION: The combined use of the tracheal autotransplant with the radial forearm flap approaches the desired optimal reconstructive morphology after repair of extended hemilaryngectomy defects and prevents a total laryngectomy in selected cases.

P115. MAXILLO-MANDIBULAR RECONSTRUCTION WITH VASCULARIZED BONE FLAPS USING INSOURCED VIRTUAL SURGICAL PLANNING AND HOME-MADE CAD-CAM: A 5-YEAR SINGLE-CENTER EVOLUTION IN 75 PATIENTS

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PURPOSE: Virtual surgical planning (VSP) and computer aided design (CAD) and manufacturing (CAM) of surgical guides and jigs turned craftsmanship into precision and enables the surgeon to complement the donor bone osteotomies with the bony resection of the jaw. In recent years, immediate dental rehabilitation became an integral part of VSP. However, outsourced CAD-CAM is expensive and may be no option to many institutions worldwide. We developed an insourced facility for ‘in-house’ VSP and ‘home-made’ 3D printing.