

COVID19 & Rural Community Pediatrics

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Salina Pediatric Care

Seven general pediatricians

One pediatric neurologist

Three pediatric nurse practitioners

General pediatric clinic

Pediatric walk-in clinic

Newborn nursery

Level II NICU

General pediatric wards

General pediatric consultations for the
surrounding community

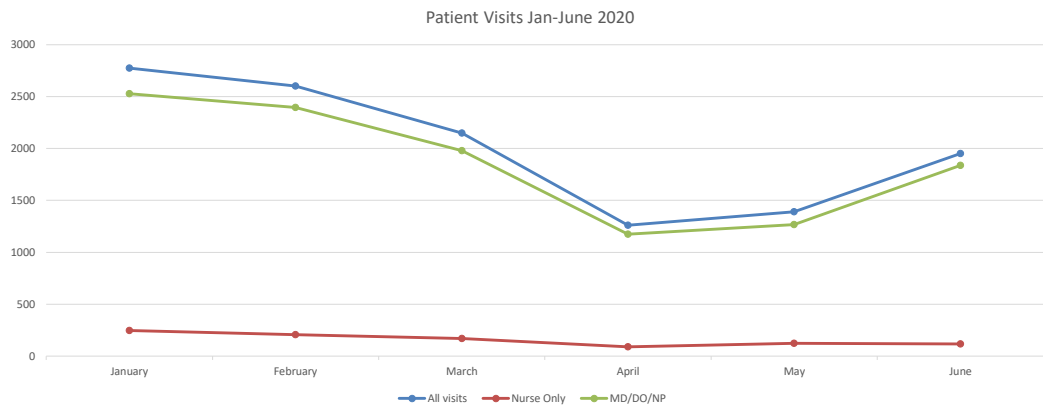


Community



Out-Patient Pediatrics

Practice Impact – Volume



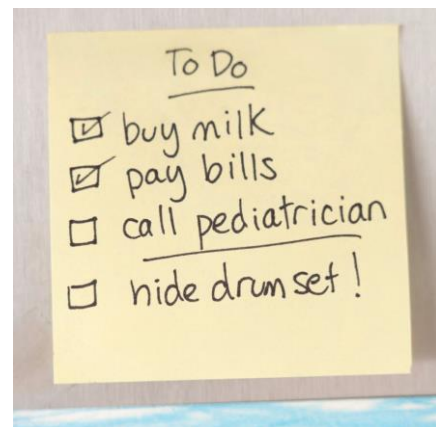
Practice Impact - Vaccinations

Delayed well visits means delayed vaccinations

Delayed vaccinations due to delayed visits impacting both private and VFC

A few parents have chosen to “just get vaccines” at local health departments and avoid physician’s office altogether, missing out of important health, development, and nutritional evaluations

#CallYourPediatrician Campaign by the AAP



Practice Impact – Social Media

Our practices maintains an active Facebook page, sharing changes in office hours and parental education

Social media presence has been key in sharing changes and new information

AAP supports HealthyChildren.Org which has great, up-to-date caregiver education

Community Impact – Return to Learn

AAP Recommendations: “AAP strongly advocates that all policy considerations for the coming school year should start with the goal of having students physically present in school.”

Policies should be:

- Flexible
- Responsive to new information
- Practical & appropriate to developmental stage of students

Special consideration given to students with special needs

Goal: Risk mitigation not risk elimination



Community Impact – Return to Learn

DEVELOPMENTALLY APPROPRIATE PRECAUTIONS

Pre-K:

- Cohort and use outdoor spaces
- Limit unnecessary visitors

Elementary:

- Physically distance when possible but not to exclusion of students from classes
- Cohort & use outdoor spaces

Secondary:

- Masks when < 6 feet apart
- Cohort, consider block scheduling or alternative schedules/flow

Community Impact – Return to Learn

Overall implication: increased demand for teachers, increased demand for ancillary staff (cleaning, etc.) while also recognizing increased risk of transmission and illness in adult population

Expect changes due to local viral transmission patterns, even short term closure or virtual learning

Stay home when ill – follow CDC guidelines for discontinuation of precautions after COVID

Impact of family life is immense: mental, physical, economic, social and relational

Community Impact – Return to Play

	STAGE 1 10 DAYS MINIMUM	STAGE 2 2 DAYS MINIMUM	STAGE 3A 1 DAY MINIMUM	STAGE 3B 1 DAY MINIMUM	STAGE 4 2 DAYS MINIMUM	STAGE 5 4 WEEKS DAY 17	STAGE 6
ACTIVITY DESCRIPTION	MINIMUM REST PERIOD	LIGHT ACTIVITY	FREQUENCY OF TRAINING INCREASES	DURATION OF TRAINING INCREASES	INTENSITY OF TRAINING INCREASES	RESUME NORMAL TRAINING PROGRESSIONS	RETURN TO COMPETITION IN SPORT-SPECIFIC TIMELINES
EXERCISE ALLOWED	WALKING, LIGHT ACTIVITIES OF DAILY LIVING	WALKING, LIGHT JOGGING, STATIONARY CYCLE, NO RESISTANCE TRAINING	SIMPLE MOVEMENT ACTIVITIES E.G. RUNNING DRILLS	PROGRESSION TO MORE COMPLEX TRAINING ACTIVITIES	NORMAL TRAINING ACTIVITIES	RESUME NORMAL TRAINING PROGRESSIONS	
% HEART RATE MAX		<70%	<80%	<80%	<80%	RESUME NORMAL TRAINING PROGRESSIONS	
DURATION	10 DAYS	<15 MINS	<30 MINS	<45 MINS	<60 MINS	RESUME NORMAL TRAINING PROGRESSIONS	
OBJECTIVE	ALLOW RECOVERY TIME, PROTECT CARDIO-RESPIRATORY SYSTEM	INCREASE HEART RATE	INCREASE LOAD GRADUALLY, MANAGE ANY POST VIVAL FATIGUE SYMPTOMS	EXERCISE COORDINATION AND SKILLS/TACTICS	RESTORE CONFIDENCE AND ASSESS FUNCTIONAL SKILLS	RESUME NORMAL TRAINING PROGRESSIONS	
MONITORING	SUBJECTIVE SYMPTOMS, RESTING HR, I-PRRS	SUBJECTIVE SYMPTOMS, RESTING HR, I-PRRS, RPE	SUBJECTIVE SYMPTOMS, RESTING HR, I-PRRS, RPE	SUBJECTIVE SYMPTOMS, RESTING HR, I-PRRS, RPE	SUBJECTIVE SYMPTOMS, RESTING HR, I-PRRS, RPE	SUBJECTIVE SYMPTOMS, RESTING HR, I-PRRS, RPE	

ACRONYMS: I-PRRS (INJURY - PSYCHOLOGICAL READINESS TO RETURN TO SPORT); RPE (RATED PERCEIVED EXERTION SCALE)
NOTE: THIS GUIDANCE IS SPECIFIC TO SPORTS WITH AN AEROBIC COMPONENT



INFOGRAPHIC CREATED BY UK HOME COUNTRIES INSTITUTES OF SPORT; ELLIOTT, N., ELLIOTT, J., BISWAS, A., MARTIN, R., HERON, N.

In-Patient Pediatrics

Practice Changes

Cohorting PUI/COVID+ patients, including pediatric and laboring mothers

Peds floor: decreased use of nebs, increase use of MDI with spacer

Newborn/NICU: rooming in with mother and breastfeeding with appropriate hand hygiene per updated July AAP Guidelines



COVID19 Impact on Pediatric Care

Patient & Community Impact

Delayed well visits

Delayed vaccinations

Delayed referrals to subspecialists

Delayed or telemedicine therapies and social supports – CAPS, ICD

Parental refusal to hospitalize when hospitalization considered essential

Increased stress on maternal mental health

Increased behavioral, mental health concerns in patients

Uncertainty in schools

Uncertainty in sports and other social interactions

Silver Linings

Increased telemedicine for behavioral visits

Increased use of MDI with spacer over nebulizers

Increased hand hygiene

Increased parent and public education regarding vaccines, viruses, and immune responses – including fever!

Anecdotally increased caregiver understanding of the relationship between mental stress and physical symptoms

Anecdotally increased rates of exclusive breastfeeding

Affirmation of pediatrician's role in caregiver education, risk mitigation, and advocacy

Lessons Learned

It is impossible to overcommunicate in a pandemic

Practice humility by being flexible

Read the literature and advocate for appropriate practice change

Our ultimate goal remains the same – healthy, thriving children. Families nearly universally have this aim in mind. Communicating clearly, approaching every day with humility, and chasing after and implementing the most up-to-date knowledge allows us to guide families to our shared goal.

References

American Academy of Pediatrics. COVID-19 Planning Considerations: Guidance for School Re-entry. 2020. <https://services.aap.org/en/pages/2019-novel-coronavirus-covid-19-infections/clinical-guidance/covid-19-planning-considerations-return-to-in-person-education-in-schools/>

American Academy of Pediatrics. FAQs: Management of Infants Born to Mothers with Suspected or Confirmed COVID-19. 2020. <https://services.aap.org/en/pages/2019-novel-coronavirus-covid-19-infections/clinical-guidance/faqs-management-of-infants-born-to-covid-19-mothers/>

Agha R, Kojaoghlanian T, Avner JR. Initial observations of COVID-19 in US children. *Hosp Pediatr*. 2020; doi: 10.1542/hpeds.2020-000257

Bellino S, Punzo O, Rota MC, et al. COVID-19 disease severity risk factors for pediatric patients in Italy. *Pediatrics*. 2020; doi: 10.1542/peds.2020-009399

CallYourPediatrician Campaign. American Academy of Pediatrics. 2020. <https://www.aap.org/en-us/about-the-aap/aap-press-room/campaigns/call-your-pediatrician/Pages/default.aspx>

CDC. Duration of Isolation and Precautions for Adults with COVID-19. 2020. <https://www.cdc.gov/coronavirus/2019-ncov/hcp/duration-isolation.html>

CDC. Coronavirus (COVID-19) 2020.. <https://www.cdc.gov/coronavirus/2019-nCoV/index.html>

References

Children's Hospital of Colorado. Charting Pediatrics: Pediatric Podcast. <https://www.childrenscolorado.org/health-professionals/professional-resources/charting-pediatrics-podcast/>

Elliott N, Martin R, Heron N, Elliott J, Grimstead D, Biswas A. Infographic. Graduated return to play guidance following COVID-19 infection [published online ahead of print, 2020 Jun 22]. *Br J Sports Med*. 2020;bjsports-2020-102637. doi:10.1136/bjsports-2020-102637

Feldstein LR, Rose EB, Horwitz SM, et al. Multisystem Inflammatory Syndrome in U.S. Children and Adolescents. *N Engl J Med*. 2020;383(4):334-346. doi:10.1056/NEJMoa2021680

Phelan D, Kim JH, Chung EH. A Game Plan for the Resumption of Sport and Exercise After Coronavirus Disease 2019 (COVID-19) Infection. *JAMA Cardiol*. Published online May 13, 2020. doi:10.1001/jamacardio.2020.2136

Sun D, Li H, Lu XX, et al. Clinical features of severe pediatric patients with coronavirus disease 2019 in Wuhan: a single center's observational study. *World J Pediatr*. 2020;16(3):251-259. doi:10.1007/s12519-020-00354-4

Walker DM, Tolentino VR. COVID-19: the impact on pediatric emergency care. *Pediatr Emerg Med Pract*. 2020; 17(Suppl 6-1):1-27. Published 2020 Jun 5.

Wu Q, Xing Y, Shi L, et al. Coinfection and other clinical characteristics of COVID-19 in children. *Pediatrics*. 2020; doi: 10.1542/peds.2020-0961

Zeng L, Xia S, Yuan W, et al. Neonatal Early-Onset Infection With SARS-CoV-2 in 33 Neonates Born to Mothers With COVID-19 in Wuhan, China [published online ahead of print, 2020 Mar 26]. *JAMA Pediatr*. 2020;174(7):722-725. doi:10.1001/jamapediatrics.2020.0878

Phelan D, Kim JH, Chung EH. A Game Plan for the Resumption of Sport and Exercise After Coronavirus Disease 2019 (COVID-19) Infection. *JAMA Cardiol*. Published online May 13, 2020. doi:10.1001/jamacardio.2020.2136