FACILITIES UPDATE:
New Spaces, New Technologies

BY BETH ADAMS

THIS SUMMER AND FALL BROUGHT A NUMBER OF NEW FACILITIES UPDATES TO PENN DENTAL MEDICINE — FROM THE INTRODUCTION OF DIGITAL RADIOGRAPHY WITHIN THE SCHOOL’S TEACHING CLINICS AND THE ADDITION OF A NEW 3D IMAGING SYSTEM, TO AN EXPANSION OF THE PENN DENTAL MEDICINE CAD/CAM CERAMIC CENTER AND THE CREATION OF AN ELECTRONIC CLASSROOM — HERE ARE HIGHLIGHTS OF SOME OF THE LATEST ADDITIONS AND ADVANCES TO THE PENN DENTAL MEDICINE CAMPUS.

GOING DIGITAL

Radiography within Penn Dental Medicine’s teaching clinics is going digital. As the first step in a complete transitioning to electronic patient records, computers are now chair-side in every clinic operatory. Approximately 200 computers were installed this summer throughout the School’s clinics, outfitted with a customized version of Dentrix patient management software for ready access to patient charts and radiographs. Digital sensors were acquired as well and the digital systems are up and ready for use in all of the School’s clinics.

On September 10, faculty and students in the School’s Oral Diagnosis and Emergency Care Clinic (OD&E) evaluated the first new patient of the day with a digital panoramic and full-mouth series, and since that launch, all radiographs for new clinic patient admissions have been digital. At press time, the other clinics were at varying stages of moving to the sole use of the new digital capabilities. A major capital investment, the introduction of digital radiography throughout the School’s clinics required the acquisition of approximately 55 digital sensors, underwritten in part through a generous agreement with Schick, the manufacturer of the selected system. Also introduced were new digital panoramic systems in the oral surgery and pediatric clinics in addition to one in the OD&E Clinic.

In the works now are the next steps in the conversion to electronic patient records, which includes the use of Dentrix for treatment planning and clinical notes. “These steps are major milestones in our quest to eliminate a paper chart” notes Jeff Fahnoe, Senior Director of Information Technology, who is managing the technology set up and support for the conversion. “The ability of the faculty to electronically sign off on all students’ work, as well as the ability to accurately see the students anticipated experience based on their current patient pool is a big change that should add efficiencies on many levels.”
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3D IMAGING

Building upon its advanced radiographic capabilities, Penn Dental Medicine has added a new system to its 3D imaging resources, acquiring a Kodak 9500 3D Cone Beam Imaging System in August. The School first added 3D imaging to its diagnostic and treatment planning tools in December 2009 with the Kodak 9000C 3D CT, receiving both systems through a generous agreement with Carestream Dental, LLC (previously PracticeWorks Systems LLC). The two 3D systems are part of the School’s Oral and Maxillofacial Radiology Clinic, associated with the Oral Diagnosis and Emergency Care Clinic (OD&E) in the Department of Oral Medicine.

“Both systems greatly enhance our ability to see anatomy and pinpoint pathology,” says Dr. Thomas Sollecito, Chair and Professor of Oral Medicine. “The big difference with the new 9500 is that it captures a wider view — from above the forehead to below the chin. This larger field of view helps advance our treatment planning abilities for those patients with craniofacial anomalies.”

“As tools for identifying pathology and teaching anatomy, the capabilities of both systems are astounding. They have tremendous resolution, the ability to rotate 3D images 360° and to view up to 600 two-dimensional slices as well, in all three planes,” adds Dr. Arthur Kuperstein, Director of the Division of Oral and Maxillofacial Radiology and Assistant Professor of Oral Medicine-Clinician Educator. The two systems complement each other and the addition of the Kodak 9500 will allow for the management of more cases with tools that best match patients’ needs.

“Now with the 9500, we have the resources to shoot a full field view for an orthodontic or craniofacial case at the same time we may be doing a study for a single-tooth implant on the 9000C,” he says. “It greatly strengthens our treatment planning resources.” And in the area of research, the Kodak 9500 will enhance ongoing studies related to bone density, osteoporosis, and osteonecrosis.

EXPANDED CAD/CAM CAPABILITIES

Adding other technological resources, the Penn Dental Medicine CAD/CAM (computer-aided design/computer-aided manufacturing) Ceramic Center expanded into adjoining space this summer with a 250-square-foot addition. The expansion added four new work benches and room for a growing inventory of state-of-the-art equipment. “Since establishing the Center [in early 2009], we have gotten so much interest and support from companies in the CAD/CAM industry through product loans and donations that we quite simply ran out of space,” says Michael Bergler, MDT, Director of the Center and of Dental Laboratory Technology. “In addition, our long-term goal is to bring more people into the lab through training/apprentice programs, which will provide added support for our students and enable us to handle a greater workload. So gaining the additional work benches is essential to accommodate that growth.”

The Center has grown to feature six different CAD/CAM systems, including one that allows for the use of an intraoral scanner, two milling machines, and two sintering furnaces. Bergler notes that acquiring in-house milling and sintering capabilities has greatly improved efficiency and quality control. “This means I can scan the model, design the restoration on screen, select my material, and send it directly to the milling machine and then on to sintering. It is a big advantage to have the entire process — from scanning to creating the final ceramic restoration — controlled within our Center,” he says. “It saves a lot of time to not have to wait for outside milling, plus, if something needs adjustment, we can react much faster — you just change what you need to change and mill it out.”

Along with advancing patient care, the Center’s growing resources are enhancing educational experiences for students as well. “The students are very excited and interested in the technology. They come to the Center to observe and we talk about the different systems and materials,” says Bergler. “When they go out in practice and look for a lab with this type of technology, they need to understand what is involved in making a full-ceramic restoration successful — from the process to the materials — so they can make the right choices for their patients.”
Electronic Classroom: Serving Students 24/7

Outfitted with classroom-style tables, a laptop at each seat, and a projection screen, the former periodical room within the Penn Dental Medicine Library has been transformed into an electronic classroom and a 24-hour study area for students. While this facilities project involved limited construction — the addition of a door from the room to the hallway — that one element played a big role in this space update, enabling 24-hour accessibility. Students can gain key access to the classroom after regular library hours.

The room is set up to create an environment for small-group classes that require internet access and/or for hands-on computer-based training programs. Penn Dental Medicine Librarian Pat Heller notes that those computer training seminars that she previously had to conduct at the University’s central Van Pelt Library can now be held in this new classroom — everything from sessions with students on how to conduct research in PubMed to faculty and staff seminars on using EndNote or PowerPoint. “It is wonderful to have a facility here for this type of instruction,” she says. “Without having to travel across campus, the convenience saves everyone time.” The room is a resource for all faculty and staff, who can reserve it for instructional and meeting needs.

When it is not in use for teaching, the classroom is available to students as a study area. “The response from students toward the room has been great,” says Heller. “They like the environment. It is a little brighter than the rest of the library, and they seem to appreciate the smaller setting for studying; plus, they enjoy having the laptops to use.” Tethered to the desks, the laptops are available at all times to anyone using the space. Heller notes that during regular hours students have been predominantly using the room to study individually, but adds that it does create a group study room option if not in use by other students. “While we are looking to develop specific group study rooms in future renovations to the library, this is a first step in developing greater study resources for our students,” says Heller. PDJ

Allan J. Olitsky, DDS, Central Registration, Scheduling, and Cashiering Suite

The new Allan J. Olitsky, DDS, Central Registration, Scheduling, and Cashiering Suite, dedicated this summer, is located in the Henry Schein Atrium of the Robert Schattner Center. Streamlining clinic patient management, the Center handles clinic patient check-in, appointment scheduling, insurance pre-authorization and verification, scheduling of follow-up appointments, and fee payments. Its proximity to the main entrance is improving patient wayfinding within the School and enhancing security as well.

New Office of Admissions

The Office of Admissions got a new home this summer with a bright new space for welcoming prospective students. Its location near the School’s entrance makes it easy for visitors to find as well. In addition to providing office space for the Assistant Dean for Admissions, Dr. Olivia Sheridan, and Director of Admissions, Corky Cacas (pictured), the area includes a meeting room for student interviews and use by the staff.

Evans Building Third Floor East

A complete renovation of the east wing of the Thomas W. Evans Building’s third floor has opened up the space to reveal the original windows and vaulted ceilings. The 3,800-square-foot area, completed this summer, features modular office space for staff and faculty. The open desks in the front section are available for use as needed by visiting faculty. The space also includes lockers for faculty use; a Faculty Lounge, made possible through the estate of Dr. Frank D. Adshead, Jr. (D’37), see related story, page 23; and a conference room. In addition, staff members from the offices of Information Technology, Development and Alumni Relations, Communications, and Fiscal Operations have their work spaces in this area.