Project Title: Improving Dermatology Patient Access in Iowa

Society Names: Iowa Dermatological Society

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Brief summary: The Iowa Dermatological Society is requesting funding to create 1) a comprehensive web-based resource to improve patient access to dermatology services and medications and 2) a secure, web-based mobile application to serve as a telehealth portal for dermatology providers and patients. The amount of funding requested is to be able to build a website and telehealth portal in order to improve access to dermatologic care.

Background and significance:

Rationale for choosing Iowa to initiate new technology for patient access in dermatology
Iowa is a logical choice for piloting new initiatives for access to care in dermatology. The population in Iowa is 3.1 million and is relatively small, yet there is a pressing need for access to dermatology services. The population has a significant rural component and there are few dermatologists in the state. Access is limited and care is often delayed. The insurance market is also narrow with few private insurers in addition to Medicare, Medicaid/CHIP, and the VA system. The smaller scale makes implementation of new initiatives relatively simpler for proof-of-concept and raises probability of success.

Need for Dermatology Patient Access and Advocacy Network
Potentially life-threatening skin cancer or chronic diseases with severe reductions in quality of life occur with dermatologic disorders. Timely patient access to dermatology services and ability to afford needed medications is important. The healthcare environment is changing, health plans are in flux, and pharmaceutical benefits are increasingly restricted. Information sharing and providing tools to help navigate the complex system may lead to better health outcomes. Patients can be empowered to more effectively advocate for better medication access when they have more knowledge about their pharmacy benefits and the requirements of prior authorizations, rejections, and step therapies.

For both patients and physicians, accurate information about a local insurance plan's provider network, coverage determination, and pharmacy benefits is

challenging to obtain and changes over time. Sharing of key information condensed in one location on the Internet can work to reduce delays in care and access to timely therapies, especially related to formulary and step therapy requirements. The information is obtainable in several ways. In the course of practice, some dermatology service providers and office staff become better informed but the knowledge is not transferred to colleagues or to patients. A web-based dermatology patient access and advocacy network can be the link to greater patient awareness and education of issues that are oftentimes hidden to the consumer.

Useful and trusted information aiding patient access can be harnessed on the access and advocacy website. Insurance plans can be contacted to verify key contact information and local coverage updates periodically. Some insurance plans may opt to become partners in the endeavor. Dermatology healthcare providers in Iowa can be also be contacted to check accuracy of inclusion in health plan networks and if new patients are being accepted. A formal biannual detailed provider survey can be instituted to query service access and barriers on all fronts.   Dermatology service providers in Iowa will be asked to develop a strategy for providing fast-track access to care for patients with critical access needs.

Generating tools for patient advocacy that are easy to find and use can help patients and their doctors become better advocates to get the care they need. A web-based access and advocacy network can facilitate navigation of the insurance system for patients and dermatology care providers. The site can include appropriate routine contact information for coverage and pharmacy benefit queries for the various major private and public health plans available in the state. Patients can also find out how to contact their local and state legislative members of Congress to share concerns when they are met with challenges accessing dermatologic care and medications.

Need for telehealth platform for patient and provider communication
Improved communication tools between dermatology providers will enhance patient care and access to care. The ability to transmit patient photographs easily between dermatology providers will enhance the referral and consult process, allowing patients to be triaged and seen more efficiently. Redundant office visits may become unnecessary, opening appointment availability to others.

Patient to physician communication tools also need to be improved to improve patients' access to their providers and remotely evaluate patients in the post-procedural period and for routine medical follow-up. When prompted, patients can reply to their providers' questionnaire and provide photos for telemonitoring after procedures. Oftentimes, patients travel long distances in the state of Iowa to access dermatology specialty and subspecialty care, and short term follow-up can be impossible or an extreme hardship. Having the ability to virtually evaluate

these patients and provide recommendations is essential - and may have significant cost savings for both the patient and the system.

In addition, the ability to manage patients on high risk medications using a streamlined application will improve patient safety. Patients taking high risk medications may be prompted by their providers to complete checklist questionnaires for monitoring, including a response for reminder to obtain additional laboratory testing if needed.

Quality of care will be assessed with opportunity for continuous improvement using validated patient-reported measures such as disease-specific response or quality of life metrics. Post-therapy telemonitoring can also occur using patient photographs.

Communications strategy to generate awareness
The Iowa Dermatological Society routinely communicates with the majority of dermatology care providers in the state. This project will be the first in the state to engage patients and provide a secure portal for patient communication. Communication of the website and telehealth application availability will occur via all available modalities including the following: website, social media, YouTube video, newsletter, local media coverage, press release, letters to the editor, collaboration with disease-specific patient advocacy groups, and paid search tool advertisement. Contact with regional hospital systems, community health organizations, and health plans will further help spread the word.

Health insurance marketplace and coverage in Iowa
Iowa's uninsured rate has decreased by half in the past two years and hovers at approximately 5% for 2015. This reduction is attributed in large part to expansion of Medicaid and Children's Health Insurance Program (CHIP) enrollment.

Private health insurance: Iowa's primary private insurance carriers are Wellmark Blue Cross and Blue Shield (BCBS) of Iowa, Coventry Health Care of Iowa, Inc, and Avera Health plans. Wellmark BCBS of Iowa covers the majority around 1.8 million individuals.

Health insurance exchange: Approximately 20% of eligible Iowans (39,347 people) have enrolled in Iowa's health insurance exchange marketplace, managed using healthcare.org. This health insurance marketplace is in flux. Last year, one of Iowa's health plans, CoOpportunity, failed leaving only one plan offered by Coventry on the market. In 2016, greater variety of plans will be available including offerings by Coventry, Medica, United Healthcare of the Midlands, Avera, and Gunderson. Wellmark BCBS, Iowa's largest carrier, has agreed to participate in the exchange in 2017. The average after-subsidy premium in Iowa increased to $117/month, compared with the national average of $105/month, and most select the "silver" level plan.

Federal and state programs: Medicare, Medicaid, and Children's Health Insurance Program plans are also available based on eligibility. Iowa's Medicaid program is in the process of undergoing a transition to privatization under managed care plans. Nearly 600,000 Iowans are enrolled in Medicaid/CHIP plans, reflecting almost 90% of eligible individuals (http://www.medicaid.gov). Medicare enrollees are over 500,000 in number and premiums range from $104 to $335, depending on income level. The Veterans Administration Central Iowa Health System also provides dermatologic specialty care at limited locations.

Access to care in Iowa

Few ACGME or AOGME residency trained dermatologists in the state of Iowa with a population of 3.01 million and significant rural coverage including areas in the surrounding states (South Dakota, Minnesota, Wisconsin, Illinois, Missouri, and Nebraska). Even if a patient has health insurance, access to dermatology services is oftentimes limited. Appointment access may be restricted to waiting several months versus traveling a long distance. Nurse practitioners in Iowa may practice independently but this does not significantly increase access to dermatology.

The listings of providers offering dermatology specialty care in both private and public insurance networks are accurate, including names of those who are no longer in the state or have ceased practice. Listings do not include if new patients are being accepted. The US General Accounting Office and peer-reviewed literature substantiate that insurance networks can be inaccurate and inadequate.

Telehealth adoption has been limited by lack of funding, electronic security concerns, and failure of interoperability of electronic health systems. Major health systems are working to make telehealth for dermatology services in Iowa more accessible, but it is years away from fruition on a large scale.

Access to medications

Rising drug costs and restrictions in use by health insurance plans are reducing the ability of patients to access needed medications. The out of pocket costs for medications are high and could strain the budget even for middle-income patients. In the past few years, insurance plans have increasingly placed extreme measures whose effect has severely limited medication access. More medications are being placed in higher benefit tiers that have co-insurance requirements of a percentage of the medication cost instead of set fee copays. The shift can occur without notice, removing the option for patients to make a different choice in benefit plans. Prior authorizations and denials of coverage are now routine for many prescriptions. Step therapy, or requirement for failure of over-the-counter or less expensive but possibly less effective medications, is also commonplace for commonly prescribed dermatology medications. Sometimes patients who have failed multiple prior treatments are forced to repeat failed medications again if they change insurance plans. Study of step therapy for

some medications (but none yet for dermatology) have shown no associated cost savings, only delay in treatment and undertreatment. Patient education is needed to help patients become more aware of the challenges, navigate the system, and advocate for betterment.

Restricted access to medications results in delays and denials of care. It not only negatively impacts individual's health and quality of life but also society at large in lost time and productivity at work. In addition to increasing awareness of the hurdles, patients need better information regarding medication assistance programs and patient advocacy groups for reduced-cost options. Links to free tools to help shop for lowest cost medications at regional retail locations offer real-time, practical benefit.

Options for the uninsured
Iowa has been making progress reducing the number of uninsured, yet up to 150,000 Iowans are estimated uninsured and there are about 75,000 illegal immigrants without health care or eligibility for assistance. (Milliman consulting firm per Des Moines Register May 19, 2014) There are free health clinics in Iowa, some with dermatology services. There is no central resource for a patient to learn where the clinics are located and how to access them. Links to state-endorsed navigators and sites helping determine eligibility for coverage assistance will help direct insurance enrollment.

Risk management
Technology and legal support will be obtained. Policies and best practices will be maintained regarding data security evaluating risk of data breaches, hacking, and inappropriate use of the data. Usual terms of service and privacy statements will be created with legal consultation. Adherence to typical legal standards including HIPAA compliance and data integrity will be required for participation. Pre-production testing of the telehealth application will use mock patients and volunteer participating providers followed by revisions facilitated by the technology support team.

Goals and Objectives:

Goal 1: Dermatology Patient Access and Advocacy Network
Create a comprehensive web-based trusted resource to improve patient access to dermatology services and medications in the state of Iowa. A well designed website with attention to health literacy and cultural sensitivity will be built to serve patient information needs. Outcomes will be assessed using standard statistical methods. Application for Institutional Review Board approval will be made for publication of outcomes. The platform and plan can be shared with other states for more widespread implementation.

Objective 1a: Improve access to dermatologic care in Iowa
- Dermatology service provider profiles

- Verified health plan participation and acceptance of new patients
- Plan for fast-track access to care for critical needs patients
- Connection to free clinics, navigators, and sites to help determine eligibility for insurance assistance.
- Preparation for future facilitation of telehealth access and coordination

Outcomes 1a:
- Website functionality measured by number of hits, user surveys, and user locations
- Measure of description of new website service in all news via LexisNexis search
- Response rates for biannual detailed dermatology provider profile surveys

Objective 1b: Improve access to dermatologic medications for Iowans
- Share trends in common formulary, prior authorization, and step-therapy pharmaceutical benefits
- Links to patient assistant programs and patient advocacy foundations
- Links to existing, free tools for best price comparison at local retail locations

Outcomes 1b:
- Website functionality measured by number of hits, user surveys, and user locations
- Self-assessment by checklist for provision of data

Objective 1c: Patient advocacy for access to dermatologic care and medications. Can be used by patients and healthcare providers.
- Health plan contact information available for coverage and pharmacy benefit concerns with explanation of the typical processes for benefit tiering, prior authorization, and step therapies.
- Map-based connection to contact information for local legislators, state legislators, and members of Congress
- Link to patient advocacy groups including the Coalition of Skin Diseases
- Link for physicians to the American Academy of Dermatology's Dermatology Action Network

Outcomes 1c:
- Website functionality measured by number of hits, user surveys, and user locations
- Self-assessment by checklist for provision of data

Goal 2: Telehealth platform for patient and provider communication
Create a secure, web-based mobile application to serve as a telehealth portal for dermatology providers and patients. The web-based mobile telehealth portal will feature both website and mobile device accessibility. Communication between registered dermatology providers will enhance consultations and transfers of care

to improve patient access. A patient portal allows patients to send data, when prompted, to their registered provider to ease access to routine medical or surgical follow-up care and for telemonitoring to address quality of patient care. The portal will not serve as routine communication service between patients and providers along the lines of email; rather, it will function to message telemonitoring data to enhance quality of care. The system may evolve in the future to allow for telehealth access to new patients, but will only service existing patients initially. Long term, the Iowa Dermatological Society may opt to pay for maintenance fees to continue the telehealth portal free of charge or may opt to charge providers a user fee.

Patient health information and patient data will be owned by the dermatology provider and will not be accessed by other providers in the system. Technologists supporting the system will be required to follow legal standards protecting patient information according to the Health Insurance Portability and Accountability Act. The platform and plan will be offered at no charge and can be shared with other states for more widespread implementation. Outcomes will be assessed using standard statistical methods. Application for Institutional Review Board approval will be made for publication of outcomes.

- Referrals or consults for subspecialty dermatology care. To help streamline the referral process, photographs and patient information can be securely sent from provider to provider.
- Telehealth options for replacing office visits during the global period following procedures
- Telemonitoring for management of patients on high risk medications
- Patient-reported outcomes such as quality of life or disease-specific response metrics

Even in cases where patient portals exist in electronic health records, these functions are not typically available and record systems are not interoperable. Patient-specific data can be provided in a user-friendly spreadsheet format for scanning, but seamless incorporation into various proprietary electronic health record systems or registries will require action by the sponsoring parties.

Objective 2a: Establish a dermatology provider network to improve access to dermatology care in Iowa via telehealth.
A registry of dermatology providers in the telehealth network will be formed. Dermatology providers can communicate with each other and expedite consultation and referral systems. Examples include the following:
- Fast-track access to care for critical needs patients
- Referral for Mohs micrographic surgery
- Referral to other providers if lack of appointment availability or insurance participation are barriers to timely care

Outcomes 2a:
- Number of dermatology providers registered to participate
- Application use by number of referrals or consultations
- Application use by number of communication encounters with patient response
- Response rates and results of biannual providers and patient surveys

Objective 2b: High-risk medication monitoring to improve patient care access and safety.

The secure web-based mobile application will serve as a patient portal to share data, when prompted, with dermatology providers for high risk medication safety monitoring and for patient-reported outcomes for measuring quality of care.

Participating dermatology providers or their designees can generate patient registries for high risk medication monitoring and be able to send recall reminders for laboratory testing. Telemonitoring for high risk medications will be based on a checklist system for collecting data on associated symptoms and features, including asking if the patient has obtained laboratory testing as instructed. For patients who fail to obtain the laboratory testing, a checklist examining the barrier including need for requisition or in-network laboratory services may be communicated back to their provider. This will help providers keep track of safety concerns and visualize patients who need testing before medication refills can be completed.

Communication to and from the telehealth portal can occur via email or text. Registered providers or their designees can receive email or text alerts suggesting access to the portal to address patient updates or safety concerns about patients arise. Prioritization of these communications can be flagged as high priority for high alert safety concerns or when patients become out of compliance. Similarly, patients will receive email or text alerts per preference for when they are prompted to provide telehealth data. Patients will receive weekly reminders. When a patient fails to respond, the provider will be notified.

Outcomes 2b:
- Number of providers and patients registered to participate
- Point of care surveys of providers and patients regarding user experience
- Quantify numbers of actionable notifications sent and received by users
- Consenting providers may opt to obtain Institutional Review Board approval for formal assessment of data provided including utility and effectiveness of telemonitoring for high risk medications. Data can be evaluated to estimate potential cost savings in reduction of days away from work, travel cost, time used in telephone calls, number of office visits, and potential medication errors.

Objective 2c: Post-treatment telemonitoring to improve access to follow-up care and quality measurement.

Patients can use the portal to share clinical photo documentation of disease response to treatment and appropriate healing after procedures when prompted. This may reduce the number of follow-up office visits, opening availability of office-based appointments for others. The number of office visits during the global period following common dermatologic procedures might also be reduced. Telemonitoring may also improve patient outcomes by promoting faster access to in-person visits with providers if needed.

Patients can use the portal to provide data to physicians using standard surveys of quality of life, disease-specific response, or other quality metrics. There is no current system available, to our knowledge, which can offer this function. The format of a mobile application grants accessibility and ease of use.

Outcomes 2c:
- Number of providers and patients registered to participate
- Point of care surveys of providers and patients regarding user experience
- Quantify numbers of actionable notifications sent and received by users
- Calculate estimate of potential cost savings in reduction of days away from work, travel cost, time used in telephone calls, number of office visits, and potential medication errors.
- Consenting providers may opt to obtain Institutional Review Board approval for formal assessment of data provided including utility and cost-effectiveness of telemonitoring, effect on quality of care, and calculation of number of in-person office visits.

Proposed Timeline and Activities:

Timeline: January 1, 2016 to December 31, 2017
Funding is being requested for a 2-year period during which the project will be completed.

Activity #1: Website and telehealth application development (January to October 2016)

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