Telemedicine Clinic
Rattanakiri
Referral Hospital
May 2005

Report and photos compiled by Rithy Chau, SHCH Telemedicine

On Thursday, June 2, 2005, Rattanakiri Referral Hospital (RRH) staff began their TM clinic. PA Rithy Chau was not present during this month clinic. The patients were examined and the data were transcribed along with digital pictures of the patient, then transmitted (except for a few follow-up patients who came for medication refills and/or further instruction on referring to PP) and received replies from their TM partners in Boston and Phnom Penh.

The following day, Friday, June 3, 2005, the TM clinic opened again to receive the same patients for further evaluation, treatment and management. Finally, the data for treatment and management would then be transcribed and transmitted to the PA Rithy Chau at SHCH who compiled and sent for website publishing.

The followings detail e-mails and replies to the medical inquiries communicated between TM clinic at RRH and their TM partners in Phnom Penh and Boston :

From: Kiri Hospital [mailto:kirihospital@yahoo.com]
Sent: Monday, May 30, 2005 3:08 PM
To: Rithy Chau; jmiddleb@camnet.com.kh; Cornelia Haener; Ruth Tootill; Brian Hammond; Paul Heinzelmann; Kathleen M. Kelleher; Joseph Kvedar
Cc: Sovann Nop; Ed & Laurie Bachrach; HealthNet International; Bernie Krisher; Noun SoThero; Fil B. Tabayoyong; Montha Koy
Subject: The Next TM clinic at Rattanakiri

Dear All,

Please be informed that the next TM clinic at Rattanakiri Referral Hospital will be held on Thursday, June 2,2005 beginning at 8:00am local time for one full day. We expect to enter and transmit the patient data to those of you at SHCH and at Partner in Boston that evening.

Please try to respond before noontime the following day, Friday, June 3, 2005.The patents will be asked to return to the hospital that afternoon on Friday to receive treatment along with a follow up plan or referral.

Thank you very much for your cooperation and service.

Best regards,

Channarith Ly

From: Kiri Hospital [mailto:kirihospital@yahoo.com]
Sent: Thursday, June 02, 2005 4:15 PM
To: Rithy Chau; jmiddleb@camnet.com.kh; Cornelia Haener; Ruth Tootill; Brian Hammond; Paul Heinzelmann; Kathleen M. Kelleher; Joseph Kvedar
Cc: Ed & Laurie Bachrach; HealthNet International; Bernie Krisher; Noun SoThero; Fil B. Tabayoyong; Montha Koy
Subject: Rattanakiri Referral Hospital TM clinic Patient BT#00118

Dear All,

This is the first case of this month patient BT#00118 and there will be more photos to be sent later.

Best regards,

Channarith

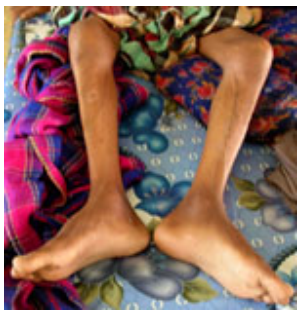
Rattanakiri Provincial Hospital Telemedicine Clinic with Sihanouk Hospital Center of HOPE and Partners in Telemedicine

Patient: BT#00118,47M,SRECHHOUK VILLAGE,

Chief Complaint: edema of both knee for one month

HPI: 47M has complaint of both knee and ankles joints pain off and on for 10 days .He was treated with Dexamethasone injection (IM)at his home and he got better .and then He appeared the productive cough with burning chest pain ,moderate fever with graduated weigh loss, asthenia, low appetite ,his wife took him to LUMPATH HC and positive smear examination and then he took the anti TB drugs for 2-3 days at HC and symptoms appeared edema of both knee and ankles without walking with bending .He was referred to RH ,he has taken the PNC 250mg 2 tab tid for 10 days , VIT B1,B6,B12 1tab po tid for 10 days ,Paracetamol 1tab po q6 for prn ,and anti TB DRUGS ,He complains of both knee edema with ankle edema without bending and walking association with both burning knee joints pain and burning ankles joints pain with a small red skin .no headache , no n/v , no coma , no convulsion .

PMH/SH:



Social Hx: no smoking ,no alcohol

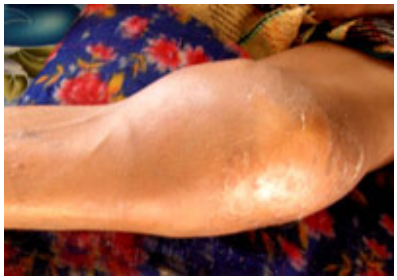
Allergies: none

Family Hx: unremarkable

ROS:

PE:
Vital Signs: BP120/80mmhg P70/mn R23/mn T37.5 Wt

General: look stable

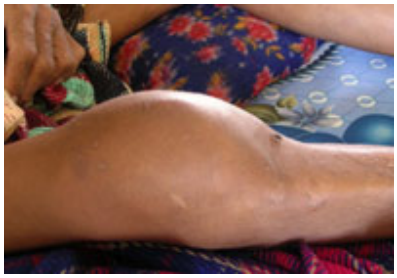


HEENT: unremarkable

Chest: -Lungs = crepitation of both lungs , no rhonchi
-Heart= no murmur , normal RRH .
Abdomen: soft , no mass, no organomegaly , active BS .

Musculoskeletal: crepitation sound of both patella movement and fluctuation on palpitation, knee and ankle joints pain on palpitation , and both legs can not bending and walking like this flexion (yourself , other person hold his legs because pain).

Neuro: motor intact and sensory intact



GU: none

Rectal: none

Previous Lab/Studies: positive smear examination

Lab/Studies Requests: x-ray of both knees and ankles. ESR .Ca2+, k+

Assessment: 1.Suppurative arthritis
2.Rheumatic fever
3.TB arthritis

Plan: 1.Aspiration of fluid from bone cavity after x- ray
2.Ibuprofen 400mg 1tab po bid for 10 days
3.Vitamine bB1,B6,B12 1tab po tid for one month
4.Extencilline 1g 1 vial IM Test for one dose /month

Comments/Notes: please give a good idea

Examined by: Dr kok San **Date: 2/6/05**

Please send all replies to kirihospital@yahoo.com and cc: to tmed_rithy@online.com.kh .

From: Ruth Tootill [mailto:ruth_tootill@online.com.kh]
Sent: Thursday, June 02, 2005 9:18 PM
To: Kiri Hospital; Rithy Chau; jmiddleb@camnet.com.kh; Cornelia Haener; Brian Hammond; Paul Heinzelmann; Kathleen M. Kelleher; Joseph Kvedar
Cc: Ed & Laurie Bachrach; HealthNet International; Bernie Krisher; Noun SoThero; Fil B. Tabayoyong; Montha Koy
Subject: Re: Rattanakiri Referral Hospital TM clinic Patient BT#00118

Dear Chanarith,

Thanks for discussing this patient. From a surgical point of view it is very rare to develop septic arthritis in more than one joint. The photos do not show a lot of redness and there is no mention of heat over the joints. I would think that an inflammatory arthritis is much more likely and it should respond to non-steroidal anti-inflammatories. ESR and X-rays may be helpful.

Ruth Tootill

From: Jack Middlebrooks [mailto:jmiddleb@camnet.com.kh]
Sent: Friday, June 03, 2005 8:36 AM
To: 'Kiri Hospital'; 'Rithy Chau'; 'Cornelia Haener'; 'Ruth Tootill'; 'Brian Hammond'; 'Paul Heinzelmann'; 'Kathleen M. Kelleher'; 'Joseph Kvedar'
Cc: 'Ed & Laurie Bachrach'; 'HealthNet International'; 'Bernie Krisher'; 'Noun SoThero'; 'Fil B. Tabayoyong'; 'Montha Koy'
Subject: RE: Rattanakiri Referral Hospital TM clinic Patient BT#00118

Dear Dr. San:

Thank you for this interesting consultation.

When trying to make a diagnosis for joint pain, some good questions to ask are: Has there been any recent trauma or unusual acitivities? Has the patient ever had joint pain before? Which was the first joint to be affected? What makes the pain better? What makes the pain worse? Is the pain worse in the morning, or at the end of the day after working? Is the patient still able to perform his usual activities (working, going to the market, putting on clothes)? Have there been any rashes? Because gonorrhea can cause a septic arthritis, it is important to ask about sexual activity and any recent penile discharge. The PE should include a description of the range of motion, size and color, and any associated pain of the joints of the hands, wrists, elbows, shoulders, hips, knees, ankles and toes.

As Dr. Ruth commented, it would be unusual for a septic arthitis to involve four joints (bilateral ankles and knees) and I suspect that the cause is not infectious. Because there does not appear to be an overlying cellulititis, I agree with your plan to aspirate joint fluid for a microscopic examination. I also agree with your plan for XR of the knees. I would continue the ibuprofen; the dose can be increased to a maximum of 800mg po TID if needed. If the joint fluid examination demonstrates less than 75% polymorphonuclear lymphocytyes, I would discontinue the Extencilline.

Best regards,
Jack Middlebrooks

From: Fiamma, Kathleen M. [mailto:KFIAMMA@PARTNERS.ORG]
Sent: Friday, June 03, 2005 8:49 PM
To: kirihospital@yahoo.com
Cc: tmed_rithy@online.com.kh; Bernie Krisher; dr fil b tabayoyong jr; Fil B. Tabayoyong
Subject: FW: Rattanakiri Referral Hospital TM clinic Patient BT#00118
Importance: High

Greetings Channarith:

Here is the response for case 00118.

I believe that I may have erred when sending this yesterday, so I apologize for my mistake.

Please confirm receipt of this response.

Best regards,

Kathy Fiamma
617-726-1051

-----Original Message-----
From: dsands@bidmc.harvard.edu [mailto:dsands@bidmc.harvard.edu]
Sent: Thursday, June 02, 2005 3:22 PM
To: Fiamma, Kathleen M.
Subject: RE: Rattanakiri Referral Hospital TM clinic Patient BT#00118

I don't feel comfortable managing this patient outside a hospital. He is too sick and complex.

I need more information from you. Are his joints hot to the touch?

He may have septic arthritis, but since he has a symmetric arthritis it is less likely bacterial. It may be due to tuberculosis, gonococcal, viral, brucella, etc. It could be rheumatic fever, but this is less likely because it is not a migratory pattern. It could even be crystalline (gout in his age group).

He needs to have an arthrocentesis for diagnosis. It's important to send for red and white cell counts, WBC differential count, gram stain, AFB stain, culture, crystal analysis.

He also needs blood culture, CBC, joint x-rays.

Please continue his anti-TB medication. Vitamin B6 would be fine along with that.

He can have ibuprofen for pain.

Regarding empiric antibiotics, do not give this until after you have aspirated his joints and sent appropriate tests. Once you have, it would be best to give ceftriaxone 1gram IV every 24 hours. The reason this is better than penicillin is that it won't treat gonococcal arthritis and this is unlikely to be acute rheumatic fever.

Again, I think he should be hospitalized.

- Danny Daniel Z. Sands, MD, MPH V: (617) 667-1510
___/ Center for Clinical Computing F: (810) 592-0716
(__ Beth Israel Deaconess Medical Center
___) Harvard Medical School http://cybermedicine.caregroup.harvard.edu/dsands

From: Kiri Hospital [mailto:kirihospital@yahoo.com]
Sent: Thursday, June 02, 2005 4:44 PM
To: Rithy Chau; jmiddleb@camnet.com.kh; Cornelia Haener; Ruth Tootill; Brian Hammond; Paul Heinzelmann; Kathleen M. Kelleher; Joseph Kvedar
Cc: Ed & Laurie Bachrach; HealthNet International; Bernie Krisher; Noun SoThero; Fil B. Tabayoyong; Montha Koy
Subject: Rattanakiri Referral Hospital TM clinic Patient KL#00119

Dear All,

Here is the patient KL#00119 and her photos.

Best regards,

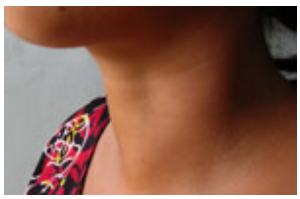
Channarith

Rattanakiri Provincial Hospital Telemedicine Clinic with Sihanouk Hospital Center of HOPE and Partners in Telemedicine

Patient: KL#00119,32F,Vilage IV

Chief Complaint: a small mass on neck = 3x4 em for four years

HPI: 32f presented with a small mass on neck, which has progressively developed with vertigo on and off associated with palpitation, headache, occasionally. She was treated with unknown medicines at private clinic for resolving symptoms .but when She stopped all medicines ,her symptoms still appears vertigo , headache ,palpitation on exertion ,blurry vision and tinnitus on and off , no tremor of extremity ,no ptosis , no exophthalmia. no fever



PMH/SH:

Social Hx: no ETOH

Allergies: NONE

Family Hx: her husband ‘s hypertension, her mother ‘s DMII

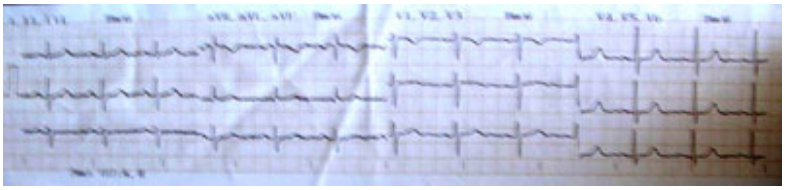
ROS:

PE:
Vital Signs: **BP90/60mmhg** **P72/mn** **R24/mn** **T37** **Wt** 50kg

General: alert and oriented

HEENT: no otitis ,no conjunctivae pal , no pharyngolaryngitis .a small mass on neck = 3x4em ,soft mass on palpitation , mobile swallowing, no bruit on auscultation ,no solid .

Chest: -Lungs: clear both sides , no rhonchi , no crackle .
-heart: no JVD, no murmur ,no irregular rhythm .
Abdomen: soft ,no mass, no organomegaly ,active BS ,



Musculoskeletal: unremarkable

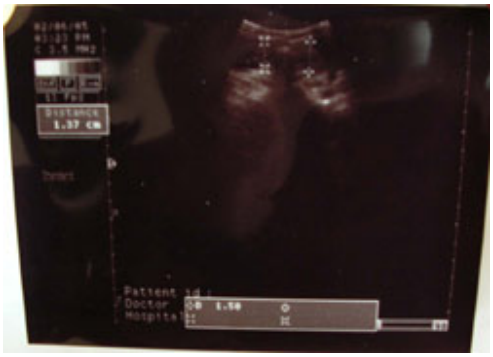
Neuro: motor and sensory intact

GU: none

Rectal: none

Previous Lab/Studies: none

Lab/Studies Requests: ultrasound of neck, CBC: m/s -, WBC10800 /mm3 ,RBC:3558000/mm3,Hb:12,3mm,Htc:36% .Differential counting : E :04%,N:70%,L:24%,M:02%,EKG



Assessment: 1.Hypothyroidism
2.Hyperthoiroidism

Plan: 1. Check free T4and TSH at SHCH
2.MTV 1 tab po qd for one month
3. Paracetamol500mg 1tab po for prn

Comments/Notes: please give a good idea

Examined by: Dr kok san **Date: 2/6/05**
Please send all replies to kirihospital@yahoo.com and cc: to tmed_rithy@online.com.kh .

upon, this information by persons or entities other than the intended recipient is prohibited. If you received this e-mail in error, please contact the sender and delete material from any computer.

From: Ruth Tootill [mailto:ruth_tootill@online.com.kh]
Sent: Thursday, June 02, 2005 9:29 PM
To: Kiri Hospital; Rithy Chau; jmiddleb@camnet.com.kh; Cornelia Haener; Brian Hammond; Paul Heinzelmann; Kathleen M. Kelleher; Joseph Kvedar
Cc: Ed & Laurie Bachrach; HealthNet International; Bernie Krisher; Noun SoThero; Fil B. Tabayoyong; Montha Koy
Subject: Re: Rattanakiri Referral Hospital TM clinic Patient KL#00119

This lady appears to have a multinodular goitre, although I am not able to say much about the ultrasound as it did not come out very clear on the screen. I would recommend checking her thyroid function tests to ensure that she is euthyroid.

It is likely that her thyroid will continue to increase in size with time. If she is euthyroid, surgery would be the best way to treat her. In view of the distance from Phnom Penh she would probably need a subtotal thyroidectomy, hoping that the residual thyroid tissue would prevent her from becoming hypothyroid.

If she is not euthyroid, she would require initial medical therapy.

Can you send blood to Phnom Penh for TSH, T4 and T3?

thanks

Ruth

From: Fiamma, Kathleen M. [mailto:KFIAMMA@PARTNERS.ORG]
Sent: Friday, June 03, 2005 12:41 AM
To: kirihospital@yahoo.com
Cc: tmed_rithy@online.com.kh
Subject: FW: Rattanakiri Referral Hospital TM clinic Patient KL#00119

-----Original Message-----
From: Tan, Heng Soon,M.D.
Sent: Thursday, June 02, 2005 11:24 AM
To: Fiamma, Kathleen M.
Subject: RE: Rattanakiri Referral Hospital TM clinic Patient KL#00119

The clinical pictures are excellent, but the EKG is out of focus, though I can make out sinus rhythm. It's hard to read the thyroid sonogram. A technician report would be helpful. The sonogram is a useful test since it will confirm a thyroid nodule rather than thyromegaly, reveal other occult nodules if present, and distinguish between a solid mass [adenoma, carcinoma] or cyst [colloid]. My clinical impression is that she is euthyroid, her nonspecific symptoms reflect anxiety disorder, and that she has an incidental thyroid mass, likely a colloid cyst. Besides TSH and T4 to confirm euthyroid state, TPO [thyroglobulin antibody] will tell us whether she has Hashimoto's thyroiditis. Aspiration of thyroid nodule and cytological testing of tissue material will be useful. If

it is a colloid cyst, the cyst will collapse and cytology will be negative. if it is solid, cytology may distinguish between adenoma or carcinoma.

Heng Soon Tan, M.D.
From: Jack Middlebrooks [mailto:jmiddleb@camnet.com.kh]
Sent: Friday, June 03, 2005 8:46 AM
To: 'Kiri Hospital'; 'Rithy Chau'; 'Cornelia Haener'; 'Ruth Tootill'; 'Brian Hammond'; 'Paul Heinzelmann'; 'Kathleen M. Kelleher'; 'Joseph Kvedar'
Cc: 'Ed & Laurie Bachrach'; 'HealthNet International'; 'Bernie Krisher'; 'Noun SoThero'; 'Fil B. Tabayoyong'; 'Montha Koy'
Subject: RE: Rattanakiri Referral Hospital TM clinic Patient KL#00119

Dear Dr. San:

When considering a diagnosis of hyper- or hypothyoidism, some helpful elements of the history and physical include: mood, sensitivity to heat or cold, diarrhea or constipation, changes in skin or hair, changes in the mentrual cycle and increased or decreased reflexes.

As Dr. Ruth has already commented, I agree with your plan to check thyoid hormone levels. If the patient is euthyroid, she should be considered for surgery. If she is hyperthyroid, she should be treated medically for 3 months until she is euthyroid and ten considered for surgery.

With best regards,

Jack Middlebrooks

From: Kiri Hospital [mailto:kirihospital@yahoo.com]
Sent: Thursday, June 02, 2005 5:23 PM
To: Rithy Chau; jmiddleb@camnet.com.kh; Brian Hammond; Paul Heinzelmann; Kathleen M. Kelleher; Joseph Kvedar
Cc: Montha Koy; Ed & Laurie Bachrach; HealthNet International; Bernie Krisher; Nancy Lugn; Noun SoThero; Fil B. Tabayoyong
Subject: Rattanakiri Referral Hospital TM clini Patient NH#00010

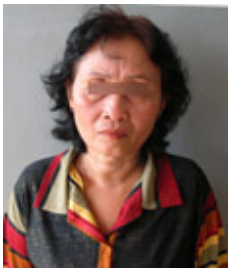
Dear All,

Here is the last case of this month patient for follow up ,patient NH#00010 and her photos.

Best regards,

Channarith

Rattanakiri Referral Hospital Telemedicine SOAP Form



ID:NH#00010 Age: 50 Sex: F Village:III

Subject: She has treated with Atenolol 50mg ¼ tab qd po ,1/2 tab po bid according to BP ,P with ASP 500mg 1/6 tab po qd or 1/5 tab po qd according to tab containing ,and Cimetidine200mg 2 tab po bid since this patient joined to treat by TM clinic .at last month she stopped to treat all medications .her complain o f palpitation on exertion ,chest pain with asthenia , burning epigastric pain with eructation off and on .no n/v ,no blurry vision ,no tinnitus, no coma .

Object:
Vital Signs: BP LBP:150mmhg, RBP:140/80mmhg P72/mn R24/mn
T36.5 Wt

Previous Lab/Studies: premier EKG , CHEST X-RAY ,

Lab/Studies Requests: chest x-ray , EKG , CBC ,

Assessment: 1.HTN 2.Left ventricular Hypertrophy ? 3.Gastitis? 4.aorta insufficiency ?5.aorta stenosis?

Plan: 1.Atenolol 50mg 1/ 2 tab po bid according to BP 2.ASP5 00mg 1/6 po qd 3cimetildine 200mg 2 tab po bid

Comments/Notes: please give a good idea

Examined by:Dr kok san Date: 2/6/05

Please send all replies to kirihospital@yahoo.com and cc: to tmed_rithy@online.com.kh .

From: Fiamma, Kathleen M. [mailto:KFIAMMA@PARTNERS.ORG]
Sent: Friday, June 03, 2005 12:45 AM
To: kirihospital@yahoo.com
Cc: tmed_rithy@online.com.kh
Subject: FW: Rattanakiri Referral Hospital TM clini Patient NH#00010

-----Original Message-----
From: Sadeh, Jonathan S.,M.D.
Sent: Thursday, June 02, 2005 11:30 AM
To: Fiamma, Kathleen M.
Subject: RE: Rattanakiri Referral Hospital TM clini Patient NH#00010

I would ask a few questions: did she improve with the atenalol/aspirin/cimetidine therapy before? How does her ECG look like now?
On the last visit my notes say she had very significant ECG changes suggestive of active ischemia. Given the appearance of her ECG then I have no doubt that she has coronary disease and we have to assume that is the reason for her symptoms now. Aortic disease (like dissection) is possible but her BP of only 140/80 makes it less likely. Gastritis is also possible but the appearance of her ECG tells me I have to treat it as coronary disease first.
I would give her the atenalol and try to get her pulse down to ~50/minute very aggressively--increase the dose every day if her BP is tolerating it; a full aspirin a day; AND a nitrate (either nitroglycerin short acting or long acting).
Obviously getting her to a hospital is important but if not possible I would go with the approach above and follow her very frequently, if possible.
Please write with more questions/concerns,
Jonathan Sadeh, M.D.

From: Jack Middlebrooks [mailto:jmiddleb@camnet.com.kh]
Sent: Friday, June 03, 2005 9:05 AM
To: 'Kiri Hospital'; 'Rithy Chau'; 'Brian Hammond'; 'Paul Heinzelmann'; 'Kathleen M. Kelleher'; 'Joseph Kvedar'
Cc: 'Montha Koy'; 'Ed & Laurie Bachrach'; 'HealthNet International'; 'Bernie Krisher'; 'Nancy Lugn'; 'Noun SoThero'; 'Fil B. Tabayoyong'
Subject: RE: Rattanakiri Referral Hospital TM clini Patient NH#00010

Dear Dr. San:

Do you know why the patient stopped all of her medications? Was she having significant side effects? Were they too expensive?

It would be helpful to understand the patient's symptoms of palpitations and chest pain. Do they only occur with exertion? Does she have lightheadedness, sweating, radiating pain or shortness of breath? Is she able to perform her usual activities?

It would also be helpful to include a physical examination for this patient, escpecially a cardiac examination. Does she have a regular heart rhythm? Does she have a murmur?

If the epigatric burning improves with cimetidine, it would be fine to continue the aspirin; however, if it continues, I would stop the aspirin. I agree with your plan to restart the atenolol and perform and EKG.

Best regards,

Jack Middlebrooks

Friday, June 3, 2005

Follow-up Report for Rattanakiri TM Clinic

There were 2 new and 1 follow up patients seen during this month TM clinic at Rattanakiri Referral Hospital (RRH). The data of all new and follow-up cases were transmitted and received replies from both Phnom Penh and Boston. Per advice sent by Partners in Boston and Phnom Penh Sihanouk Hospital Center of HOPE, the following patients were managed and treated per local staff:

[Please note that in general the practice of dispensing medications at RRH for all patients is usually limited to a maximum of 7 days treatment with expectation of patients to return for another week of supplies if needed be. This practice allows clinicians to monitor patient compliance to taking medications and to follow up on drug side effects, changing of medications, new arising symptoms especially in patients who live away from the town of Banlung and/or illiterate.]

Treatment Plan for Rattanakiri TM May 2005

I. BT#00118, 47M, Sre Chhouk Village

Dx: 1. Arthritis

Tx: 1. Ibuprofen 400mg 1 tab po tid x 10d
2. MTV 1 tab po qd x 1mo

II. KL#00119, 32F, Village IV

Dx: 1. Neck mass 2. Hyperthyroidism?

Tx: 1. Check TSH and free T4 at SHCH

Follow-up Patient:

I. NH#00010, 50F, Village III

Dx: 1. HTN 2. LVH 3. Gastritis 4. Aortic Insufficiency/stenosis

Tx: 1. Atenolol 50mg ½ tab po bid x 1mo
2. Cimetidine 400mg 1 tab po bid x 1mo
3. ASA 500mg 1/6 tab po qd x 1mo

The next Rattanakiri TM Clinic will be held on
June 22-23, 2005