

HA CONVENTION 2010

PILOT STUDY OF TIGHT CONTROL EARLY RHEUMATOID ARTHRITIS CLINIC



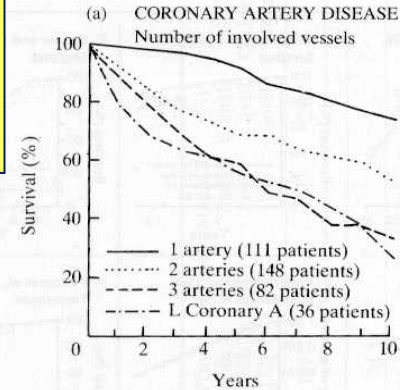
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BACKGROUND

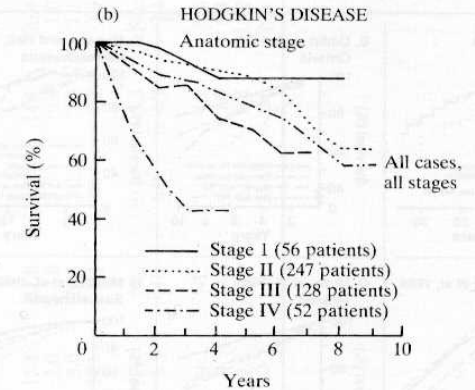
Active rheumatoid arthritis (RA) can be crippling ; mortality approaches lymphoma if left untreated



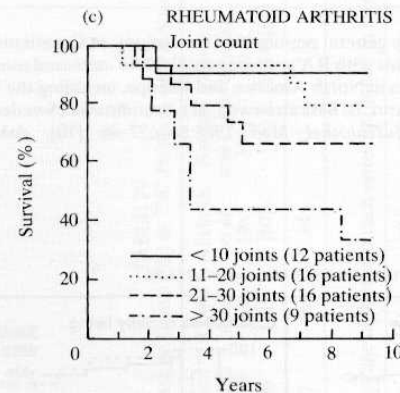
9-10 YEAR SURVIVAL ACCORDING TO QUANTITATIVE MARKERS IN THREE CHRONIC DISEASES.



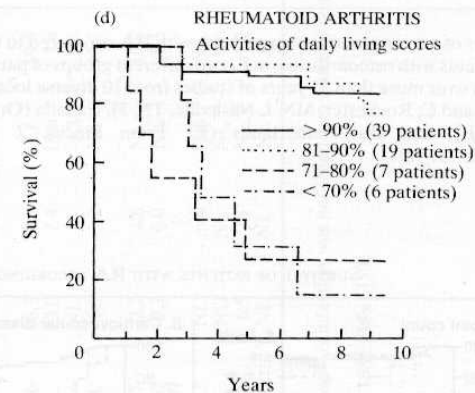
Proudfit *et al.* 1978 [67]



Kaplan *et al.* 1972 [68]



Pincus *et al.* 1987 [35]



Pincus *et al.* 1987 [35]

BREAKTHROUGH IN MANAGING ACTIVE RA

1. Biologic agents

- ⊙ Targeted on key cytokines in RA inflammation
- ⊙ In RCT, successful in long-standing and early RA
- ⊙ Cost ~ HK\$ 10,000 per month, indefinite use

2. Tight control

- ⊙ **Early, aggressive** and **objective** goal directed treatment
- ⊙ Prevent RA from progressing to a stage that is only salvageable by expensive biologics
- ⊙ Most desirable approach from public health perspectives

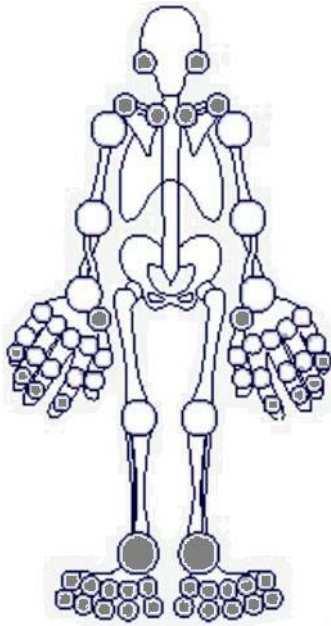
MEASURING RA

Joint pain +
Joint pain +++

ESR 25 mm/hr
ESR 50 mm/hr



MEASURING RA OBJECTIVELY



- ◎ Clinically important parameters:
 - ◎ Tender joint count TJC (out of 28)
 - ◎ Swollen joint count SJC (out of 28)
 - ◎ Patient global assessment (by VAS)
 - ◎ Blood test inflammatory marker (ESR)
- ◎ Lump sum: **Disease activity score**
- ◎ **DAS** = $0.56 * \sqrt{(TJC)} + 0.28 * \sqrt{(SJC)} + 0.70 * \ln(ESR) + 0.014 * (VAS)$

DAS	Activity
>5.1	High
3.2-5.1	Moderate
<3.2	Low

STUDIES ON RA TIGHT CONTROL

Effect of a treatment strategy of tight control for rheumatoid arthritis (the TICORA study): a single-blind randomised controlled trial *Lancet* 2004 ; 364: 263-69

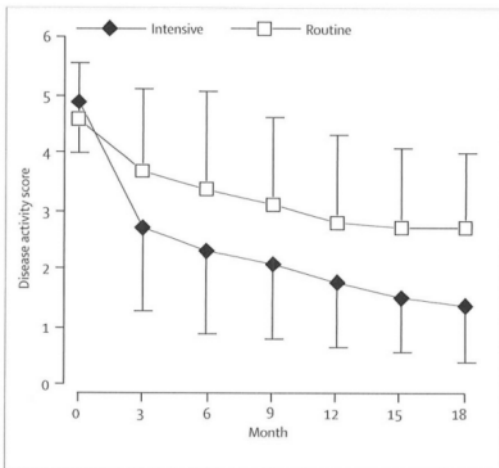
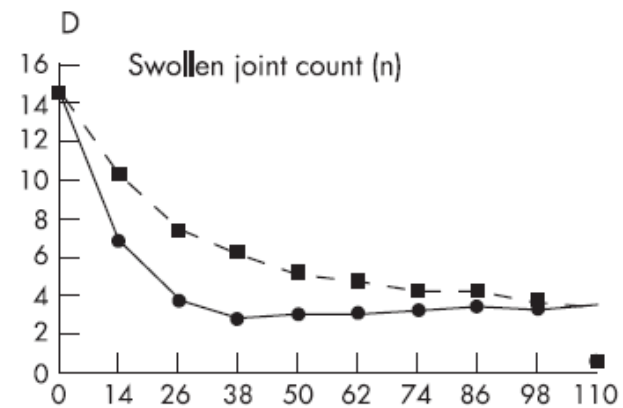
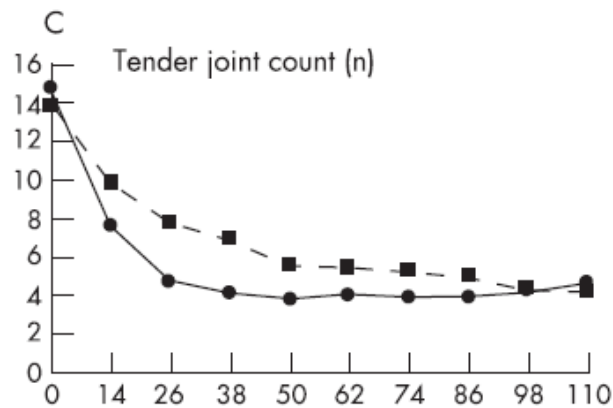


Figure 3: Mean disease activity score
Student's t test used. Intensive vs routine after month 3, $p < 0.0001$. Error bars show SD.



Intensive treatment with methotrexate in early rheumatoid arthritis: aiming for remission. Computer Assisted Management in Early Rheumatoid Arthritis (CAMERA, an open-label strategy trial) *Ann Rheum Dis* 2007;66:1443-1449.

PARTICULAR HURDLES IN HK

- ◎ **Therapeutic nihilism – patient misconceptions**
 - ◎ 乜西醫都有風濕咩?
 - ◎ 風濕有得醫咩?
 - ◎ 算啦, 得過且過嘛, 邊有得搞架!
- ◎ **Fear of drug side effects – patients & doctors**
 - ◎ 果的風濕藥好毒喎!
 - ◎ 係唔係又用類固醇?



TIGHT CONTROL RA CLINIC

- ⊙ Since 2003, **DAS** has been prospectively entered into CMS notes in rheumatology clinics
- ⊙ **Tight control early RA clinic** has been set up since Oct 2008
 - ⊙ RA onset within 2 years
 - ⊙ Goal directed – aim at DAS < 3.2
 - ⊙ Tight control, close adjustment of drugs
 - ⊙ Protocolised disease modifying agents escalation
 - ⊙ Rheumatology nurse counselling & OT assessment

DMARD USE PROTOCOL

MTX 7.5 mg/wk



Increase with increment of 2.5mg Every visit
to achieve max tolerated dose / 20mg weekly



SSZ 1 gm daily + MTX Max dose + HCQ 400 daily



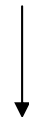
6 weeks

SSZ 1gm BD + MTX_{max dose} + HCQ 400mg daily



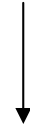
6 weeks

Addition of Prednisolone 7.5mg Daily



6 weeks

Leflunomide
Start 20mg alt day
MTX 15mg weekly



Leflunomide
20mg daily
MTX 15mg weekly



12 weeks

MTX 15+IM Gold 50mg weekly x 18 wks
then

Cyclosporin A 2-5 mg /Kg per day

METHODOLOGY OF STUDY

- ◎ All early RA patients are channelled to Tight control RA clinic after Oct 2008
 - ◎ Ample of evidence in literature that tight control improves outcomes
- ◎ Tight control RA clinic data is prospectively collected
- ◎ Compared with “historical controls” in general rheumatology clinic before Oct 2008
- ◎ 1:1 case-control matching

RESULTS

- ⊙ From Oct 2008 – Oct 2009
 - ⊙ 20 patients treated in Tight control early RA clinic
 - ⊙ RA activities were brought to better control

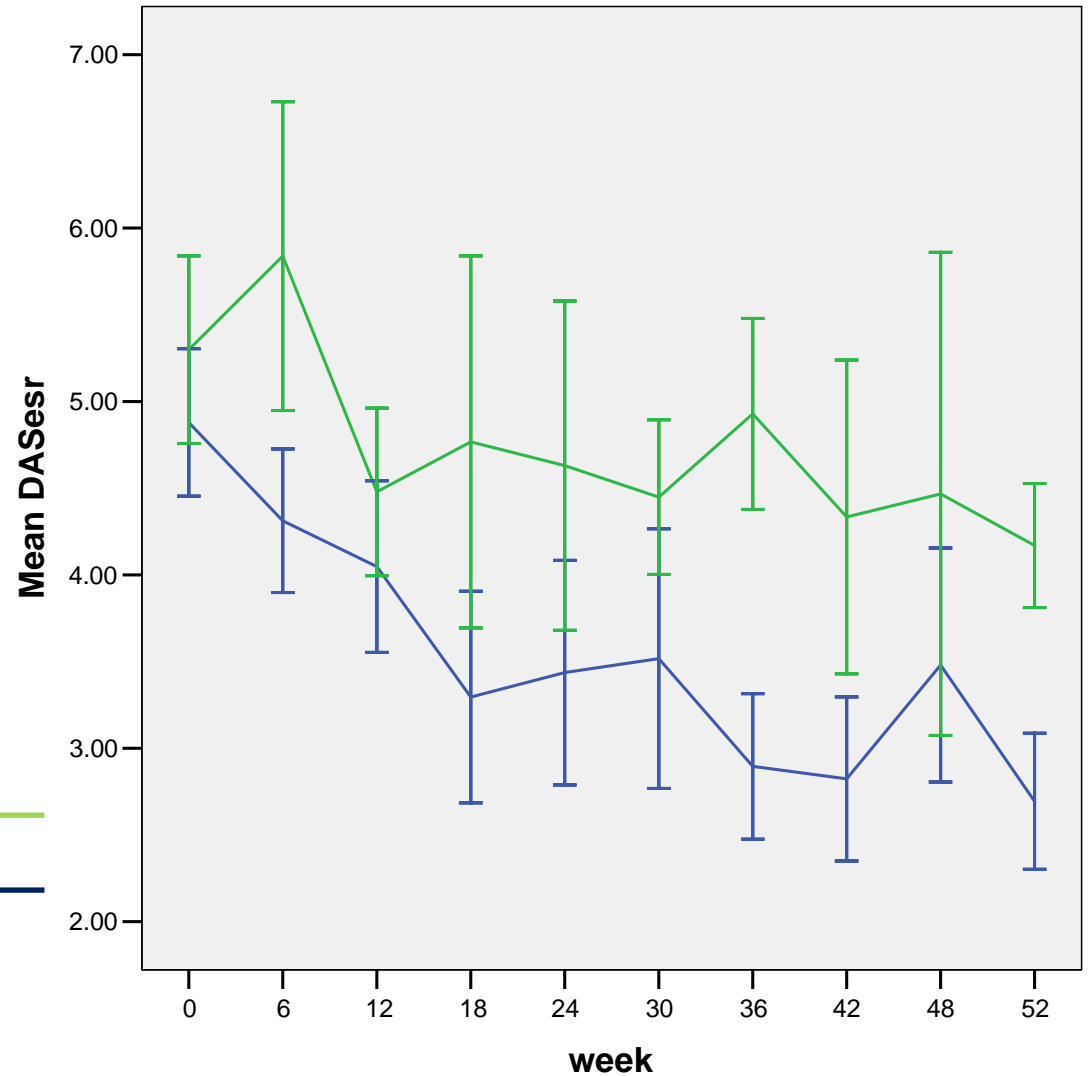
Median DAS	Baseline	Week 36	Week 52
Tight Control Clinic	5.2	2.9	2.7
Historical control	4.9	4.9	4.2
Mann-Whitney U test <i>p</i> value	0.90	<0.001	<0.001

DAMPING DOWN INFLAMMATION

Disease activity score DAS

Historical
control

Tight control

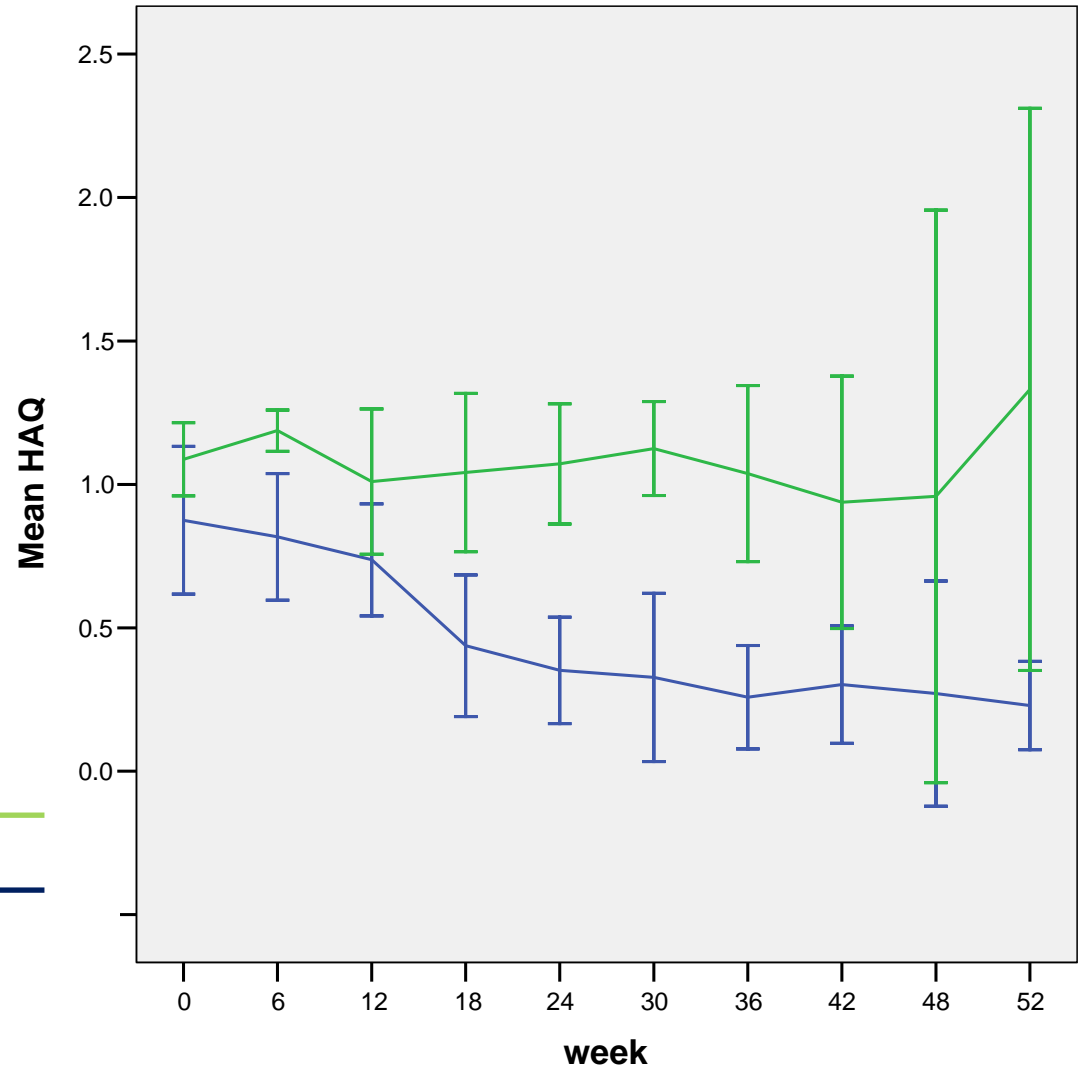


PATIENT FUNCTIONING

Health assessment
score HAQ

Historical
control

Tight control



FREQUENCY OF FOLLOW-UP

- ⊙ On average Tight control clinic RA patients were followed up around every **4 weeks**
- ⊙ In contrast to **12 weeks** for historical controls

PILOT STUDY -FEASIBILITIES TESTING

~~Potent drug~~ vs
Mode of care delivery

- ✓ Tight control of early RA is feasible
 - ✓ Adapted local version
- ✓ Objective measurement
- ✓ Management driven by explicit objective goal
- ✓ Focus of resources (rheumatology nurses, therapists etc) worthwhile

LIMITATIONS OF STUDY

- ◎ **Sample size = 20** early RA in 1 year
 - ◎ Chronic disabling disease
 - ◎ **snowballing** clinic load
- ◎ Case-control methodology:
 - ◎ Tight control clinic – **prospective** data collection
 - ◎ Historical control – **retrospective** data
- ◎ Particular co-morbidities in Hong Kong that aggressive drug use might be hazardous
 - ◎ Hepatitis B carrier, past tuberculosis history



FUTURE RESEARCH

- ⊙ Further research questions:
 - ⊙ Comparing total drug/blood testing/clinic attendance cost
 - ⊙ Cost saving against potential use of expensive biologic agents
 - ⊙ Gain in function – translated to more social participation and workability

KEY MESSAGE

- © **Tight Control Clinic** serves to bring down RA activities **faster and better**, but with more frequent follow-up and monitoring
- © It is worthwhile to **invest resources in early RA** to lessen the burden of future morbidities and mortality

THANK YOU VERY MUCH!

