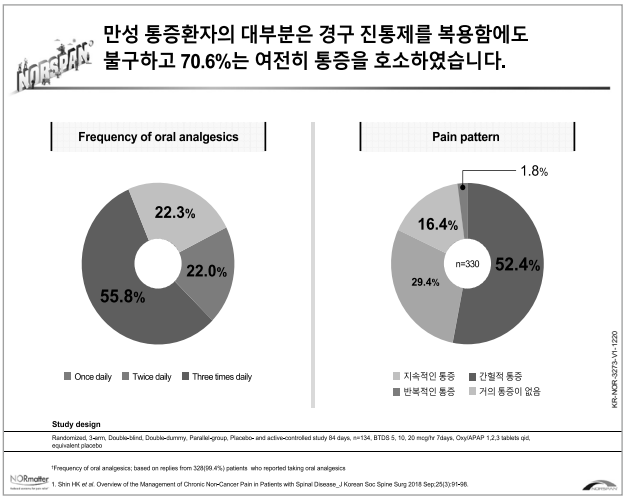
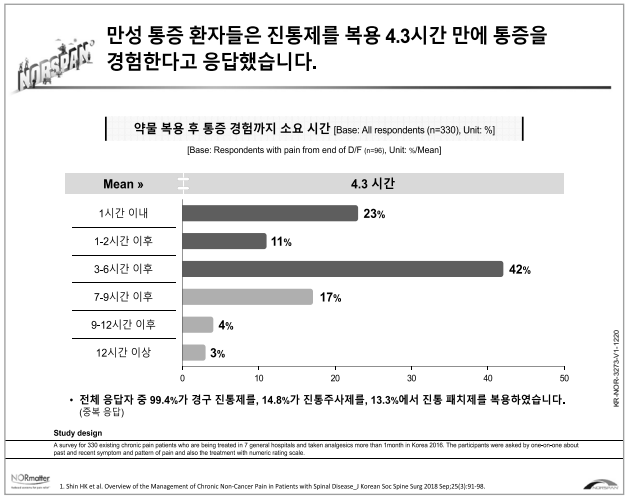
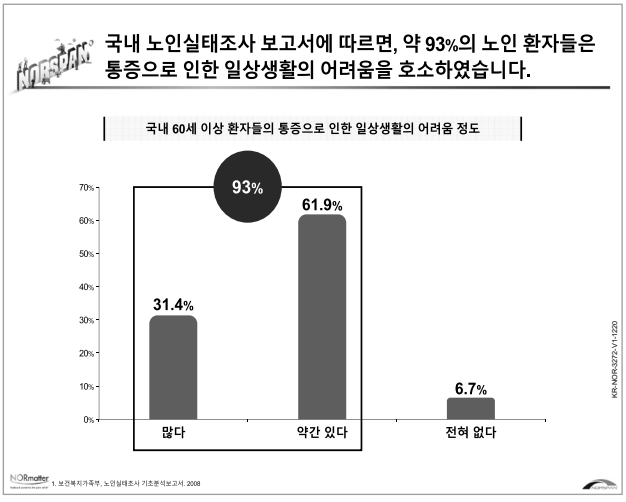
Sponsor Seminar

Norspan®: Benefit for elderly and co-morbidity patients

김 범 준
고려대







2014년 보건복지부 발표 자료에 따르면,우리나라 65세 이상 노인이 3개월 이상 복용하고 있는 처방 약의 개수는 5.3개이며 약물을 5종류 이상 복용하는 노인의 비중은 82.4% 입니다.

평균 약의 수

5.3개

5종류 이상 복용하는 노인

82.4%

KR-NOR-3272-V1-1220

1. J Pharmacol Pharmacother. 2013 Apr-Jun; 4(2): 91–94.2
2. Jaekyung Bahk. *et al*, A review of the Certified Geriatric Pharmacists Program in Australia, Korea Journal of Community Pharmacy May 2017 Vol.3 No.1 p.67-21

고령 환자들의 유병률이 높은 고혈압 및 당뇨병은 만성신질환의 risk factor이며, 특히 당뇨병 환자의 경우 최대 7.5배의 위험도를 갖는 것으로 나타났습니다.

Adjusted relative hazard of CKD[a] in total population in 23,534 participants and stratified by gender in the CLUE Study[b]

Baseline Risk Factor	Total Population Relative Hazard (95% CI)
JNC-VI BP category[c]	
Optimal	1.0
Normal	1.8 (0.5–6.5)
High-normal	3.0 (0.9–10.3)
Stage 1 hypertension	3.2 (1.0–10.4)
Stage 2 hypertension	5.7 (1.7–18.9)
Stage 3 or 4 hypertension	**8.8** (2.6–30.3)
Treated diabetes, yes versus no	**7.5** (4.8–11.7)
Current cigarette smoker, yes versus no	2.6 (1.8–3.7)
Gender, female versus male	0.6 (0.4–0.8)

[a] CKD defined as treated ESRD or death with kidney disease noted on the death certificate and confirmed as chronic kidney disease on medical chart review.
[b] Adjusted for age, cigarette smoking, treated diabetes, and gender (where applicable).
[c] $p < 0.001$ in test for trend by BP category in all groups.
Community-based, prospective observational study of 20-yr duration (from 1974 to 1994) to examine the association between hypertension and smoking on the future risk of CKD in 23,534 men and women in Washington County, Maryland.

KR-NOR-3272-V1-1220

1. Haroun MK, *et al*. J Am Soc Nephrol. 2003;14(11):2934–2941.

병태생리학적으로 노인환자에서 신기능 및 간에서 약물 대사가 저하될 수 있어, 진통제 선택 시 고려가 필요합니다.

Hepatic

An aged liver may prolong the clearance of drugs from the body secondary to prehepatic, intrahepatic,or posthepatic causes (Table 1). Prehepatic dysfunction includes decreased first-pass and blood extraction, which may be secondary to lower gastrointestinal absorption or decreased portal and arterial blood flow. Intrahepatic dysfunction may be caused by hepatocellular pathology such as cirrhosis. Posthepatic dysfunction is usually due to either biliary tree or enterohepatic circulation blockage or pathology. Liver function tests are often normal despite these changes in the elderly liver.

Table 2. Renal Changes in the Elderly[a]

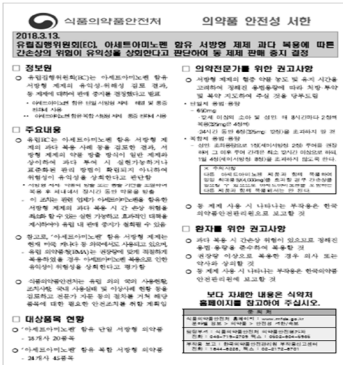
1. Decreased size by 20%–30% by age 70
2. Decreased length, number, and thickness of renal tubules
3. Increased interstitial tissue and tubular diverticula of renal tubules
4. Decrease in renal blood flow by 10% per decade after age 20
5. Glomerular filtration rate decreases 10 mL/min per decade
6. Decreased free water absorption 5% per decade after age 50
7. Accelerated decline by comorbid conditions such as hypertension, atherosclerosis, and heart failure
8. Effective renal plasma flow decreases proportionally more than glomerular filtration rate

[a] Modified from Kielstein JT, Boda-Boger SM, Haller H, Lynch DF. Functional changes in the ageing kidney: is there a role for asymmetric dimethylarginine? *Nephrol Dial Transplant*, 2003;18:1249–1248, and Lynch D. Geriatric pain. In: Raj P, ed. *Practical Management of Pain*. 3rd ed. St. Louis, MO: Mosby, 2000:278.

KR-NOR-3272-V1-1220

1. Alen D. Kaye, *et al*. , The Ochsner Journal, 2010, 10:179–187

식약처에서 아세트아미노펜 관련 안전성 서한을 배포하였습니다.



식품의약품안전처 의약품 안전성 서한

2018.3.13.

유럽집행위원회(EC), 아세트아미노펜 함유 서방형 제제 과다 복용에 따른 간손상의 위험이 유의성을 상회한다고 판단하여 동 제제 판매 중지 결정

□ 정보원

□ 주요내용

□ 대상품목 현황

□ 의약전문가를 위한 권고사항

□ 환자를 위한 권고사항

보다 자세한 내용은 식약처 홈페이지를 참고하여 주십시오.

KR-NOR-3272-V1-1220

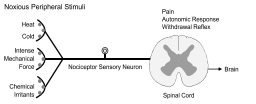
1. 식품의약품안전처, 안전성서한. Available at https://www.mfds.go.kr/brd/m_99/view.do?seq=40941.

통증은 multidimensional sensory experience 이며, 각 통증의 발생 기전에 따라, 4가지 통증 타입이 있습니다.[1]

4 primary types of pain

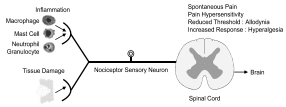
Nociceptive pain

transient pain in response to a noxious stimulus



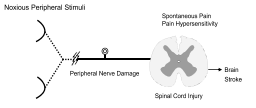
Inflammatory pain

spontaneous pain and hypersensitivity to pain in response to tissue damage and inflammation



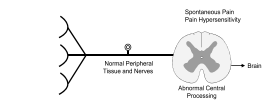
Neuropathic pain

spontaneous pain and hypersensitivity to pain in association with damage to or a lesion of the nervous system



Functional pain

hypersensitivity to pain resulting from abnormal central processing of normal input

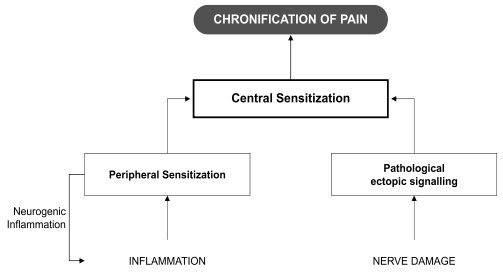


KR-NOR-3273-V1-1220

1. Clifford J. Woolf. Pain: Moving from Symptom Control toward Mechanism-Specific Pharmacologic Management Ann Intern Med. 2004;140:441-451

통증은 여러 원인으로 만성화될 수 있기에 적절한 진통제를 선택하는 것이 필요합니다.[1]

Chronification of nociceptive and neuropathic pain

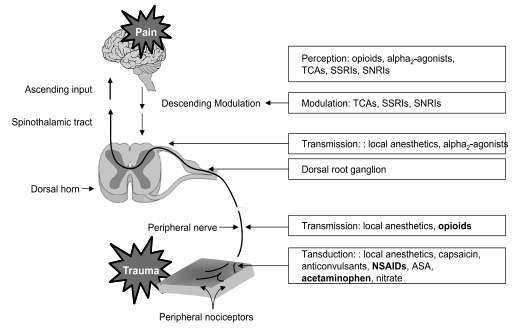


KR-NOR-3273-V1-1220

1. Vivek Verma *et al*. Nociception and role of immune system in pain. Acta Neurol Belg 2015 Sep;115(3):213-20

만성통증의 효과적인 관리를 위해 Multimodal analgesia가 추천되고 있습니다.

- Multimodal analgesia: several analgesics with different mechanisms of action, each working at different sites in the nervous system



KR-NOR-3273-V1-1220

1. Charles E, et al., Pain Medicine Volume 10 Number S2 2009

효과적인 통증조절을 위해서는 환자의 연령 및 동반질환의 유무, 통증의 성질 및 원인 등에 따라 적절한 진통제를 선택해야 합니다.

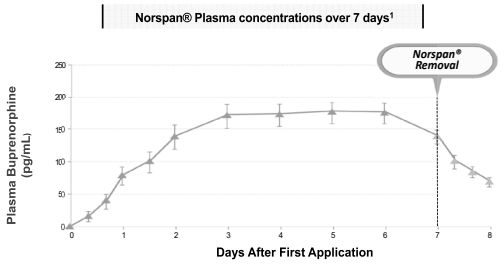
KR-NOR-3272-V1-1220

1. Duck Mi yoon, J Korean Med Assoc 2011 July; 54(7): 739-746 2. Alen D. Kaye, et al. , The Ochsner Journal, 2010, 10:179-187

KR-NOR-3272-V1-1220

1. Data on file. Buprenorphine IB no. 9 July 2010

노스판™은 지속적으로 약물을 방출하여 sustained pain relief를 제공합니다.[1,2]

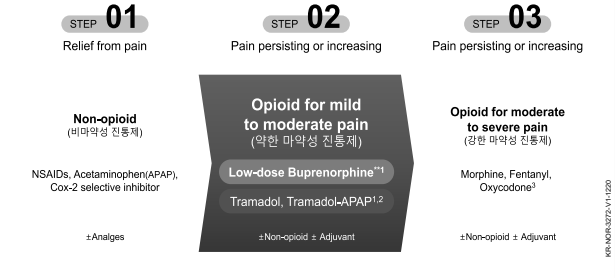


Buprenorphine plasma concentrations (pg/mL). Mean (±SE), Norspan® 10 mcg/hour Application for 7 days (n=23 Healthy subjects)

KR-NOR-3272-V1-1220

1. Principles of analgesic use in the treatment of acute pain and cancer pain, 5th ed. Glenview, Ill : American pain Society;2003
2. Data on file. Buprenorphine IB no. 9 July 2010

저용량 Buprenorphine은 weak opioid로서[2] NSAIDs로 조절되지 않는 환자들의 다음 단계로 WHO에 의해 권고되고 있습니다.[1*]

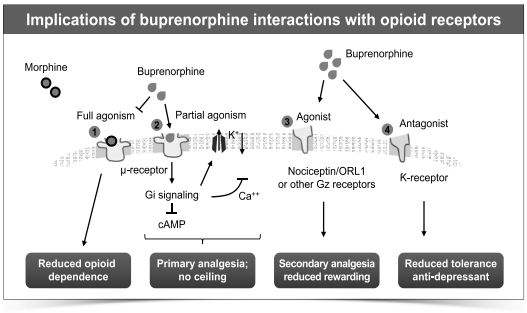


KR-NOR-3272-V1-1220

* 노스판™은 비마약성 진통제에 반응하지 않는 중등도 및 중증 만성통증에 적응증을 허가 받았습니다.
** Buprenorphine is a partial agonist. At low dose, it is an alternative to codeine.[1]

1. World Health Organization. Cancer pain relief: with a guide to opioid availability (1996)
2. Hamunen K, et al. Eur J Pain 2009;13:954-962

노스판™은 Buprenorphine을 주성분으로 μ-opioid에 partial agonist로 작용합니다.



KR-NOR-3272-V1-1220

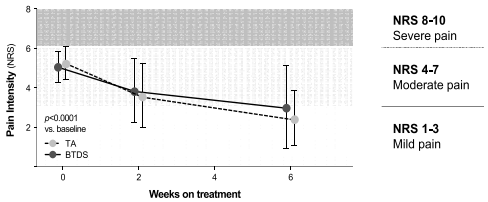
ORL1 : opioid receptor-like 1

1. Khanna IK et al. J Pain Res 2015;8:859-70

척추 수술 후 지속되는 수술 후 통증 환자에서 노스판™과 트라마돌 복합제를 비교하였을 때, 두 군의 효과는 유사했습니다.

Buprenorphine transdermal patch vs TA in patients with persistent post-operative pain after spinal surgery

- Mean pain intensity decreased significantly in both the BTDS and TA groups over 6 weeks of treatment - from 'moderate' to 'mild' pain
- Baseline to Week 6 change (FAS)- BTDS: -2.02 ± 2.14; TA: -2.76 ± 1.45



KR-NOR-3272-V1-1220

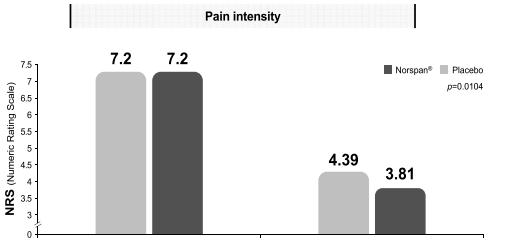
Study design

6-week, Multi-center, randomized, parallel-group, open-label, interventional, non-inferiority study in Korea, 134 Patients who experienced persistent moderate Pain (Numeric Rating Scale, NRS≥4) 14-90 days after lumbar fusion surgery. Primary endpoint: pain reduction with BTDS versus TA, patients received once-weekly BTDS (n=67;5 μg/h Titrated to 20 μg/h) or twice-daily (n=40;tramadol 37.5 mg/acetaminophen 325 mg, one tablet titrated to 4 tablets)

BTDS: buprenorphine transdermal system; TA: Tramadol/Acetaminophen; NRS: numeric rating scale; FAS: full analysis set.

1. LEE JH *et al.* Efficacy and Safety of Transdermal Buprenorphine versus oral TA _PainResManagement_Volume 2017, 11 pages

노스판™은 opioid-naïve 중등도 이상의 만성 하부 요통 통증관리에도 효과적이었습니다.



KR-NOR-3273-V1-1220

Study design

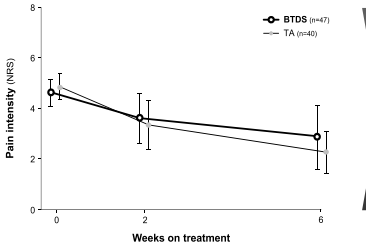
This enriched, multicenter, randomized, double-blind study evaluated the efficacy, tolerability, and safety of BTDS in opioid-naive patients who had moderate to severe chronic low back pain. 1,024 patients who tolerated and responded to BTDS (10 or 20 mcg/hour) during an open-label run-in period were randomized to continue BTDS 10 or 20 mcg/hour or receive matching placebo. The primary outcome was "average pain over the last 24 hours" at the end of the 12week double-blind phase, collected on an 11-point scale (0 = no pain, 10 = pain as bad as you can imagine). Sleep disturbance (Medical Outcomes Study subscale) and total number of supplemental analgesic tablets used were secondary efficacy variables.

The screening mean pain score SD was 7.2 ± 1.26 for patients randomized to BTDS and 7.2 ± 1.22 for patients randomized to placebo TDS. At randomization (end of the run-in period), the mean pain score SD was 2.6 ± 1.28 for patients randomized to BTDS and 2.6 ± 1.21 for patients randomized to placebo TDS. "Average pain over the last 24 hours" score at Week 12 was lower for patients randomized to BTDS (3.81 ± 0.166) than for those randomized to placebo TDS (4.39 ± 0.152). This resulted in a significant least squares mean difference between BTDS and placebo TDS of -0.58 (p=0.0104). The results of the sensitivity analyses of the primary variable, including the retained dropout ITT analysis (p=0.0007), supported the primary analysis.

1. Steiner DJ, *et al.* Journal of Pain and Symptom Management. 2011;42(6):903-917.

노스판™은 수술 후에도 지속되는 통증 관리에 효과적이었습니다.

Mean pain intensity scores from baseline to Week 6



수술 후 지속되는 통증에 노스판™과 Tramadol 투여 6주 후 통증 강도 감소는 유사하였습니다

KR-NOR-3271-V1-1220

Study design

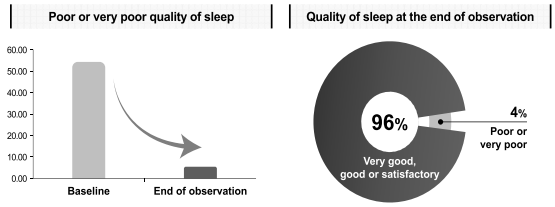
Open-label, interventional, randomized multicenter study. Adults with persistent postoperative pain (Numeric Rating Scale [NRS] ≥ 4 at 14–90 days postsurgery) were enrolled. Patients received once-weekly BTDS (n = 47; 5 μg/h titrated to 20 μg/h) or twice-daily TA (n = 40; tramadol 37.5 mg/acetaminophen 325 mg, one tablet titrated to 4 tablets) for 6 weeks. The study compared pain reduction with BTDS versus TA at week 6. Quality of life (QoL), treatment satisfaction, medication compliance, and adverse events (AEs) were assessed.

BTDS: buprenorphine transdermal system (NORSPAN); TA: tramadol/acetaminophen; NRS: numerical rating scale

1. LEE JH, *et al.* Pain Res Management Volume 2017, 11pages.

노스판™은 지속적인 통증 조절을 통해, 수면의 질을 개선하였습니다.

3,988명의 만성 골관절염으로 인한 통증 환자들에게 노스판™ 부착 후 연구 종료 시점에서 Quality of Sleep을 측정하였을 때, 96%의 환자가 Very good, Good으로 응답하였습니다.



KR-NOR-3273-V1-1220

Primary endpoint

The current pain intensity decreased on the 11-point NPS scale used (0 = no pain, 10 = worst pain imaginable) from an average of 6.9 under previous therapy before the start of the treatment to 4.1 after the first five to seven days of patch use and finally to 2.9 at the end of observation (N = 4,170) This corresponds to an overall clinically significant average improvement of four points ($p \leq 0.001$).

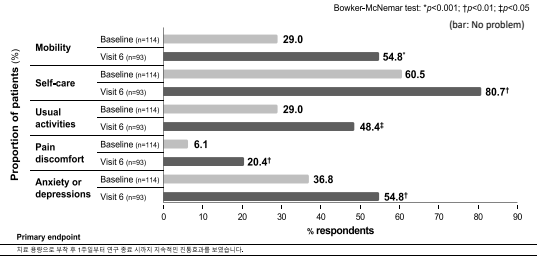
Study design

a multicenter observational study of 4623 patients for the efficacy and safety of the low-dose buprenorphine patch(5mg, 10mg, 20mg)
The efficacy and safety of the low-dose buprenorphine patch was tested as part of an extensive clinical study on the treatment of patients with moderate to severe chronic pain of non-malignant origin (10, 11). There were indications in particular that chronic pain caused by osteoarthritis can be reduced effectively with good safety.
In a double-blind approved study, 238 patients with moderately severe to severe chronic pain due to knee or hip osteoarthritis were treated with buprenorphine either in the form of sublingual pills or a low-dose patch. During the seven-week treatment phase, approximately 50% reduction in the numerical pain scores (NPS) recorded at the start of the study was found in both treatment groups in comparison with the start of the study (7).

1, U. Schutter, *et al.* MMW Progress in Medicine Originals No. II/2006 (150th Year of Issues), pp. 96-103

노스판™ 부착 후 만성통증 환자들의 통증 감소뿐만 아니라, 삶의 질이 개선되었습니다.

Comparison of patients' levels of functioning for individual EQ-5D-3 L dimensions between baseline and visit 6 (ITT population)



KR-NOR-3273-V1-1220

Primary endpoint

치료 종료으로 부착 후 1주일부터 연구 종료 시까지 지속적인 진통효과를 보였습니다.

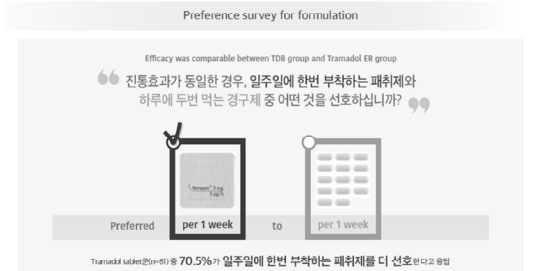
Study design

Prospective, multi-centre, open label, single-arm study across 3 countries. Primary endpoint: change in BS(Box scale)-11 pain scores: before treatment initiation and at each subsequent visit. TDB patches (5 μg/h, 10 μg/h and 20 μg/h) were used for 7 days continuously started with a 5 μg/h buprenorphine patch at baseline visit and titrated to a maximum of 40 μg/h over a 6-week period to achieve optimal pain relief. 114 Patients with Chronic non-malignant pain of moderate to severe intensity from osteoarthritis, rheumatoid arthritis, lower back pain or joint/ muscle pain.

EQ-5D-3 L: EuroQol Group 5-Dimension Self-Report-3 Level Version; ITT: Intent-to-treat

1. Yoon DH, *et al.* BMC Musculoskeletal Disorders. 2017;18:337.

70% 이상의 환자가 진통효과가 동일한 경우, 하루에 두 번 복용하는 경구제 보다 일주일에 한번 부착하는 패취제를 더 선호하였습니다.



KR-NOR-3272-V1-1220

Study design 12-week, randomized, open-label, controlled, parallel-group non-inferiority study. 134 patients with chronic moderate-to-severe hip and/or knee osteoarthritis pain., Dosage - 7-Day buprenorphine patch 5-20μg/h, Tramadol tablet 75-200mg used.

Karlsson et al. Clinical Therapeutics 2009; 31(3) : 503-513

TDB: Transdermal buprenorphine, ER: extended release

NORmatter
Reduced concerns for pain relief

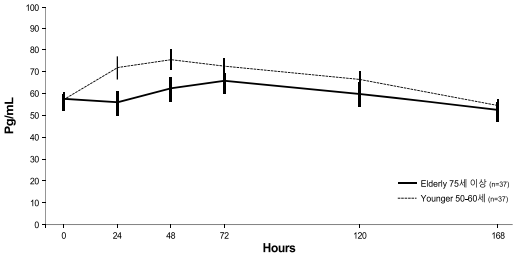
NORSPAN

Norspan®:
Safety profile in elderly & comorbidity patients

KR-NOR-3272-V1-1220

Buprenorphine은 고령 환자에서 약동학적 특성이 유사하여 용량 조절이 필요하지 않습니다.

Mean plasma concentration for Buprenorphine mean +/- standard error of the mean



Study design

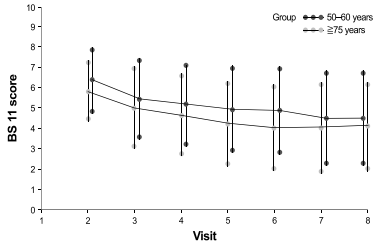
This was a multiple-dose, open-label, parallel group study in healthy volunteers split into two age groups (younger, 50–60 years; elderly, ≥75 years) with 37 individuals in each. Study participants received two consecutive 7-day buprenorphine 5 µg/h transdermal patch applications, and blood samples were collected on the week of the second patch application (day 7 (predose), days 8, 9, 10, 12, and 14) to determine PK at steady state.[1]

KR-NOR-3272-V1-1220

NORmatter 1. Khanna et al. Journal of Pain Research 2015:8 859–870 2. Nabil Al-Tawil et al. Eur J Clin Pharmacol (2013) 69:143–149

노스판™은 고령 환자에서도 유사한 통증 감소 효과를 보였습니다.

Mean BS-11 pain score by visit: full analysis population



Study design

This was a prospective, multi-center, open-label, multiple-dose, age-group controlled study.122 chronic, moderate to severe osteoarthritic pain (hip and/or knee) patients, 50–60 years (younger group, N=65) and 75 years (elderly group, N=57). After 2 weeks on paracetamol only, patients received buprenorphine patches (5–40 mg/h) for 12 weeks. Paracetamol rescue was provided. Primary endpoint was the Box-Scale-11 (BS-11) score for pain on average over the last week. WOMAC OA Index, EQ-5D, Patients' and Investigators' Global Assessment of Pain Relief, rescue medication use, sleep disturbance and quality of sleep were secondary efficacy endpoints.

The BS-11 score the day before each visit is used; if the value was missing the last observation was carried forward.
Visit 2=baseline, Visit 3=Week 1, Visit 4=Week 2, Visit 5=Week 4, Visit 6=Week 6, Visit 7=Week 8, Visit 8=Week 12

KR-NOR-3272-V1-1220

NORmatter 1. J. Karlsson et al. Current Medical Research and Opinion, 30:4, 575-587

Buprenorphine은 다른 opioid와 달리 신장애 환자에서 약물 및 대사체의 반감기가 증가하지 않아 용량조절이 필요하지 않습니다.

정상 환자 대비 신장애 환자에서 $T_{1/2}$ 및 $T_{1/2}$ metabolites 비교

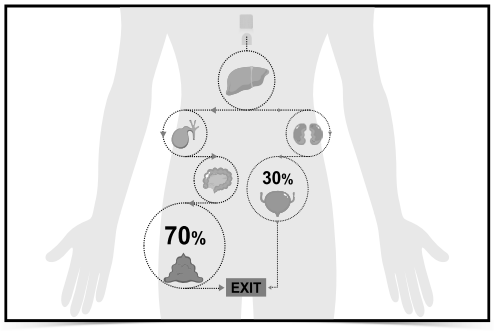
Opioid	$T_{1/2}$	$T_{1/2}$ Metabolites	Recommendation
Morphine	↑	↑↑	Dosage ↓
Oxycodone	↑	↑	Dosage ↓
Hydromorphone	↑	↑↑	Dosage ↓
Fentanyl TD	↑	↑	Dosage ↓
Buprenorphine TD	=	=	Adjust ±
Methadone	↑	↑	Dosage ↓

TD, transdermal

KR-NOR-3272-V1-1220

NORmatter 1. Pergolizzi J, et al. Pain Practice. 2008;8(4):287–313

Buprenorphine은 대부분 대변 배설되어 신장애 환자 및 투석환자에게도 용량 조절 없이 사용 가능합니다.



KR-NOR-3272-V1-1220

NORmatter 1. BUTRANS US prescribing information.

Buprenorphine은 유럽에서 고령 만성통증 환자의 1st line 치료제로 환자들에게 권장됩니다.[1]

KR-NOR-3272-V1-1220

NORmatter 1. Pergolizzi J et al. Pain Pract. 2008;8(4):287-313.

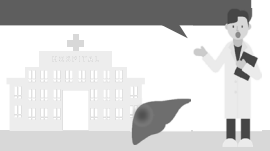
노스판™은 중등도 간장애 환자에게도 용량 조절 없이 사용 가능합니다

노스판™ 패취 5, 10, 20 μg/h

간장애

경증 및 중등도의 간장애환자에서
이 약의 특별한 용량조절은 필요하지 않다.

중증의 간장애 환자에서 이 약의 치료 중 부프레노르핀이 축적될 수 있다. 이러한 환자에서 대체치료를 고려하여야 하며, 이 약은 주의하여 투여하여야 한다.



KR-NOR-3273-V1-1220

NORmatter 1. 노스판™ 제품설명서

지속적인 통증관리를 통해 다양한 만성통증환자에게 통증 걱정 없는 일주일을 선물해주세요.

1. 만성 통증환자는 진통제를 복용함에도 70.6%는 여전히 통증을 경험함[1]
2. Multimodal analgesia를 통한 만성통증의 효과적인 관리가 추천됨[2]
3. 유럽에서는 고령환자에서 1st line treatment option으로 권장[3]
4. 노스판™은 지속적인 통증 조절을 통해 수면의 질을 개선함[5]
5. 노스판™의 우수한 safety profile로 인해 고령환자, 신장애 환자, 중등도 간장애 환자에게도 용량 조절 없이 사용 가능함[6,7,8,9]

KR-NOR-3273-V1-1220

1. Shin HK et al. Overview of the Management of Chronic Non-Cancer Pain in Patients with Spinal Disease.J Korean Soc Spine Surg 2018 Sep;25(3):91-98. 2. Charles E, et al., Pain Medicine Volume 10 Number S2 2009 3. S. Pergolizzi J et al. Pain Pract. 2008;8(4):287-313 4. Steiner DJ, *et al.* Journal of Pain and Symptom Management. 2011;42(6):903-917. 5. U. Schutter, *et al.* MMW Progress in Medicine Originals No. 1/2008 (150th Year of Issues), pp. 96-103 6. Ish K Khanna *et al.* Journal of Pain Research 2015;8 859-870
7. Nabil Al-Tawil *et al.* Eur J Clin Pharmacol (2013) 69:143–149 8. Pergolizzi J. *et al.* Pain Practice. 2008;8(4):287–313 9. 노스판™ 제품설명서

NORmatter

노스판™ 가격 및 보험 급여 기준

적응증
비마약성 진통제에 반응하지 않는 중등도 및 중증의 만성 통증 완화

가격

약가	5μg/h:	10μg/h	20μg/h
	5,285원/patch	7,988원/patch	11,996원/patch

보험 급여 기준
허가사항 범위 내에서 아래와 같은 기준으로 투여 시 요양급여를 인정함

- 아 래 -

가. 비암성통증 (골관절염, 만성허부요통)

1) 비스테로이드함염제 (NSAIDs)의 환자별 최대용량에도 반응하지 않아 마약성 진통제를 필요로 하는 심한 통증에 7일당 20 μg/h까지 인정함
2) 1회 처방당 최대 30일까지 인정함.

Osteoarthritis

상병기호	명칭
M15-M19	관절증
M15	다발관절증
M16	고관절증
M17	무릎관절증
M18	기타관절증
M19	제1수근중수관절의 관절증

Low back Pain

상병기호	명칭
M54.3	좌골신경통
M54.5	허리아래통증
M54.6	흉추통증
M54.8	기타 등통증
M54.9	상세불명의 등통증

*상병코드는 참고용으로, 환자의 상태에 따라 의료진이 결정해야합니다.

KR-NOR-3273-V1-1220

NORmatter 1. 노스판™ 제품설명서, 2. 보건복지부 고시 제2017-193호(2017.11.01 시행)

노스판™ 패취 사용 안내서

노스판™ 패취 사용 안내서

노스판™ 패취는 7일 동안 부착할 수 있습니다.
(노스판™이 떨어지면, 새로운 노스판™을 부착하세요)

노스판™ 패취 부착 후에도 샤워나 수영이 가능합니다.
(사우나 및 온열기 사용금지)

노스판™ 사용 시 어지러움 또는 메스꺼움을 느낄 수 있습니다. 이러한 증상은 시간이 지나면서 정도가 감소할 수 있습니다.

이상반응이 지속되면 패취를 제거하세요

아픈 부위가 아닌 체크한 부위에 부착하세요

새로운 노스판™ 패취를 부착할 때는 다른 부위에 붙이십시오

NORSPAN is a Registered Trademark.
TM: 노스판 is Trademark

KR-NOR-3273-V1-1220

NORmatter 1. 노스판™ 제품설명서

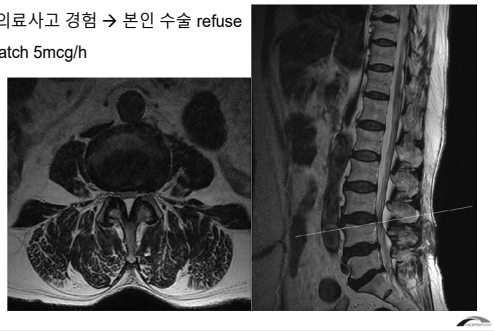
NORmatter
Reduced concerns for pain relief™

Norspan®:
Real world experience
Case#

KR-NOR-3273-V1-1220

Case #1

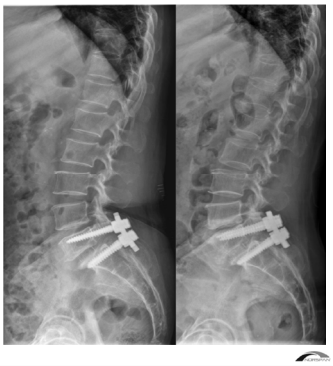
- F / 77
- 5년전 L4/5 디스크수술
- 최근 친척 의료사고 경험 → 본인 수술 refuse
- Norspan Patch 5mcg/h



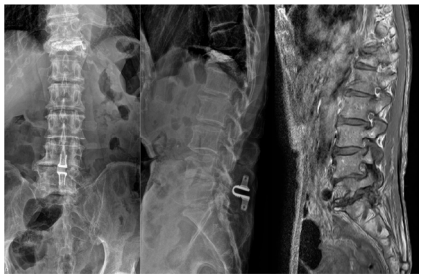
NORmatter

Case #2

- F / 70
- PLIF L4-5 1년뒤 ASD develop
- re-op refuse
- tramadol, gabapentin, limaprost 투약하였으나 intractable pain 지속
- Norspan Patch 5mcg/h



Case #3



- M/ 86
- Norspan Patch 10mcg/h
- Pain 은 호전되었는데 상완에 붙이고 어지럼 호소

→ 허벅지에 붙이고 호전

MEMO